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***Douglas D. Piirto***  
***Curriculum Vitae***  
***June 2012***

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**Educational Background**

Certificate	University of California, Berkeley	Silviculture--Sept., 1979
Ph.D.	University of California, Berkeley	Wood Science--June, 1977
M.S.	Colorado State University	Forest/Wood Science—Dec., 1971
B.S.	University of Nevada, Reno	Forestry--June, 1970

**Professional Experience**

**California Polytechnic State University**, Professor and NRES Department Head, 1985 to present. Currently serving as Department Head 1989-90, 2001 to present. Prior to 2001, I served as a professor, applied scientist, and Forest Projects Director for Swanton Pacific Ranch. I currently serve as a member of the College of Agriculture Management Team and Swanton School Forest Management Team. The NRES Dept. has 4 undergraduate and 2 graduate programs with 600 undergraduates and 15 graduate students.

**California Board of Forestry and Fire Protection.** Member appointed by the Governor in April 2007 for a four-year term ending January 15, 2011.

**Seinajoki University of Applied Sciences in Finland** Visiting Professor during the Fall, 2006 quarter, and by request for short-term weekly assignments in 2008, 2009 and 2010. My teaching and applied research assignment focused on forestry and bioenergy. I was also asked to provide advice on administration of forestry, environmental science, and agriculture university programs.

**USDA Forest Service, Sequoia National Forest**, Consultant Forest Scientist/Forester from 1995-2003 (part-time basis as my time allowed given my Cal Poly duties). Developed several major peer reviewed publications on ecosystem management of mixed conifer-giant sequoia groves. I was appointed by the President in 2000 to serve on the FACA Science Advisory Board for the Giant Sequoia National Monument. My appointment ended in 2003. This work was done as part of my Cal Poly professional development.

**USDA Forest Service, Sierra National Forest**, Served as a Professional Forester and Silviculturist consultant developing ecosystem management plans, vegetation management plans, silvicultural prescriptions and timber sale preparation work, 1990-1995 (part-time basis during my summer off-time from Cal Poly).

Participated on interdisciplinary teams. Certified Silviculturist (recertified August 1991). This work was done as part of my Cal Poly professional development.

**USDA Forest Service, Sierra National Forest, Pineridge Ranger District,** Timber Management Officer and District Silviculturist, 1980-1985 (5 years). Responsible for timber sale preparation (35 MMBF/year) and reforestation/timber stand improvement programs. Responsible for program management. Developed Environmental Assessment Reports, Timber Sale Appraisals/Contracts. Fire suppression and law enforcement duties were also assigned to me when needed.

**USDA Forest Service, Sierra National Forest, Kings River Ranger District,** Forester 1979-1980 (1 year) in charge of Small Timber Sales Program and sale administration of assigned timber sales. Developed Environmental Assessment Reports, Timber Sale Appraisals/Contracts.

**USDA Forest Service, Shasta Trinity National Forest,** Inventory Forester, 1979-1979 (4 months). Responsible for providing timber input for land management planning. Served as Contracting Officer Representative for three large timber typing contracts using aerial photos-remote sensing imagery.

**USDA Forest Service, Sierra National Forest, Kings River Ranger District,** Presale Forester, 1977-1979 (2 years). Responsible for timber sale preparation work (50 MMBF/year). Developed Environmental Assessment Reports, Timber Sale Appraisals, Reforestation/TSI Plans, and Timber Sale Contracts.

**University of California, Berkeley,** Graduate Research Assistant, 1972-1977 (5 years). Analytical research work in forest and wood science, technical writing experience.

**Colorado State University, Fort Collins,** Graduate Research Assistant, 1970-1971 (2 yrs). Analytical research work in forestry and wood science, technical writing experience.

**USDA Forest Service, Winema National Forest, Chiloquin Ranger District,** Timber Stand Improvement Crew Leader, 1969-1969 (4 months). TSI and reforestation work, fire suppression.

**USDA Forest Service, Plumas National Forest, Milford Ranger District,** Engineering Aid, 1968-1968 (4 months). Surveying forest roads and fire suppression.

**University of Nevada at Reno, College of Agriculture Soil and Water Testing Laboratory,** Laboratory Assistant, 1969-1970 (1 year).

## **Teaching Experience**

**California Polytechnic State University**, Professor, 1989 to present (22 years).  
Specializations: Silviculture, Forest Management, Forest Harvesting, Resource Fire Control, Forest Products, Forest Protection, Environmental Impact Analysis.

**California Polytechnic State University**, Associate Professor, 1987-1989 (2 years).  
Specializations: Silviculture, Forest Management, Forest Harvesting, Resource Fire Control, Forest Products, Forest Protection, Environmental Impact Analysis.

**California Polytechnic State University**, Associate Professor, 1985-1987 (2 years).  
Intergovernmental Governmental Personnel Act agreement between Cal Poly and the USDA Forest Service. Specializations: Silviculture, Forest Management, Forest Harvesting, Resource Fire Control, Forest Products, Forest Protection, Environmental Impact Analysis.

**USDA Forest Service** Instructor, 1977-present. I provided in-service training upon request for various Forest Service personnel. For example, I helped provide instruction for the Cal Poly/USDA Forest Service Professional Forestry Development Program for three different two year programs. While employed by the Forest Service, I also provided in-service training for FS employees on Forest Measurements, Human Rights, Prescription Development, Multiple Resource Management in Regenerated Stands.

**California Department of Forestry and Fire Protection** Instructor. I served as the lead instructor for a two week Silviculture shortcourse for CDF foresters.

**University of California, Berkeley**, Teaching Assistant, 1974-1975 (1 year).  
Served as a TA for Wood Anatomy.

**Colorado State University**, Teaching Assistant, 1970-1971 (1 year). Served as a TA for two summer field forestry classes.

## **Current Position**

**Hire date:** September 1985

**Tenure date:** September 1989

**Promotion dates:** Promotion to Professor 9/89. Promotion to Dept. Head 9/01.

**Current Dept. Head Appointment Percentages:** 30% Teaching, 10% Assigned Time School Forest Projects Coordinator, 60% Department Head.

### **Courses Taught:**

<u>Course #</u>	<u>Qtr(s)</u>	<u>Title</u>	<u>Units</u>	<u>Enrollment (Annual)</u>
NR 140	F/W	Careers in Forestry, Natural Resources and Environmental Management	1	100+
NR 141	F/W	Introduction to Forestry	3	90
NR 204	S	Resource Fire Control	3	60
NR 260	W	Forest Harvesting	4	48
NR 290	F/W/S	Logging Team	1	30
NR 365	F/S	Silviculture and Vegetation Management	4	48
NR 339	F/W/S	Internship	2-6	2
NR 434	W	Wood Properties and Sustainable Use	4	24
NR 416	W	Environmental Impact Analysis	4	48
NR 412	F	Resource Assessment Project	3	24
NR 465	S	Forest Ecosystem Management	4	48
NR 461	F/W/S	Senior Project	3	3
NR 475	Su	Sustainable Forest Practices	15	10
NR 581	W	Graduate Seminar	3	5
NR 500	F/W/S	Special Problems	2-4	2

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### **Graduate Students Supervised:**

- Josh Soderlund. 2012. Committee Chair. Response to Management Strategies in Young-Growth Giant Sequoia Stands at Mountain Home Demonstration State Forest, Remeasurement Twenty Years after Treatment.
- Yun, David. 2011. Committee Chair
- Smith, Nate. 2011. Committee Member.
- Loe, Valerie. 2010. Survival and Growth Response of Pitch Canker Resistant Monterey Pine Seedlings in Ano Nuevo Group Selection Cuts at Swanton Pacific Ranch, Third Year Results. Committee Member. Completed.
- Brassey, C. 2009. Committee Member.
- Pinkerton, J. 2006. Survival and Growth Response of Pitch Canker Resistant Monterey Pine Seedlings in Ano Nuevo Group Selection Cuts at Swanton Pacific Ranch, Second Year Results. Committee Chair. Completed
- Gritz, J. 2006. Raptor Habitat Selection Study for Mountain Home Demonstration State Forest. Committee Chair. Completed
- Roller, G. 2004. A Twelve-Year Remeasurement of Growth Response of Young-Growth Giant Sequoia Trees to Silvicultural Manipulation. Committee Chair. Completed
- Wise, E. 2004. Survival and Growth Response of Pitch Canker Resistant Monterey Pine Seedlings in Ano Nuevo Group Selection Cuts at Swanton Pacific Ranch, First Year Results. Committee Chair. Completed.
- Hurstak, R. 2000. Recreating canopy openings in a disturbed giant sequoia grove--a comparative study between Converse Basin and Giant Forest. This study was funded (\$20,000) by Sierra Forest Products Inc. and Save-the-Redwoods League. Committee Chair. Complete June 2000.

- Hanna, R. J. 1995. Economic Contribution of Forest Attributes to Property Value in the Lake Tahoe Basin of California. I was Project director and served on Hanna's committee.
- Gularte, B. 1993. Nitrogen Mineralization Responses to Bearclover Incorporation in Forest Soils. I was on Ms. Gularte's committee.
- Piper, K. 1992. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem: Fire Scar/Pathogen Studies. I served as Project Director and Graduate Committee Chair.
- Childers, C. 1991. Wilderness Fire Economics: A Cost-Effectiveness Analysis and Los Padres National Forest Case Study. I served as Project Director and Committee Chair.

**Undergraduate Advisees:** Varies given my Department Head responsibilities.

### **Administrative and Committee Responsibilities**

#### *National and State Organizations and Committees*

- Member of the California Board of Forestry and Fire Protection (BOF) appointed by the Governor in April 2007 through January 2011 (i.e., four year term). Chair of the BOF Forest Management committee and member of the BOF Forest Policy committee.
- Chair (2006 thru 2008) of the western region of the National Association of University Forest Resource programs (WNAUFRP).
- State of California Professional Forester license (No. 2179) initially issued January, 1984. Member of the California Licensed Forester's Association.
- Certified Forester--Society of American Foresters.
- 2004 and 2005 Chair for the SoCal State Society of the Society of American Foresters.
- Since 2000 to the present, SoCal State Society of the Society of American Foresters Science Chair.
- 1994/95 Chairman of Los Padres SAF chapter; 1983/84 Chairman of the High Sierra SAF Chapter.
- Society of American Foresters Working Group Member: Silviculture, Silvicultural Instructors Sub-Group, Education. I also served on the field trip planning committee for the 1991 SAF national convention held in San Francisco, California
- Appointed to: 1.) Science Advisory Committee for the Giant Sequoia National Monument (i.e., FACA Advisory Group); 2.) State Forest Advisory Committee; 3.) State Pitch Canker Task Force.
- Project Learning Tree Facilitator for PLT Teacher Preparation Workshops
- Served on the planning committee, session moderator, and speaker for the 1996 Coast Redwood conference and the 1992 Giant Sequoia symposium.
- Forest Product Society--Member
- Society of Wood Science and Technology--Member
- Sigma Xi--Member
- Phi Sigma Kappa--Member and Cal Poly Chapter Advisor

- Xi Sigma Pi, Forestry Honor Society--Member and past Cal Poly Chapter Advisor
- Beta Beta Beta, Biology Honor Society--Member
- Alpha Zeta, Agriculture Honor Society--Member and Past 1970 Nevada Chapter Chancellor

***Natural Resources Management and Environmental Sciences Department***

- 2001 to present NRES Department Head
- 1989-90 Interim Department Head
- 1985-2001 Acting Department Head, as needed.
- 1985 to 1995 Advisor to Xi Sigma Pi, National Forestry Honor Society.
- 1985 to present Co-Advisor to NRES Logging Team.
- 1986 to present Lead/participate in FNR/ENVM Advisory Council events.
- 1985 to present Numerous departmental ad hoc committees as assigned.
- 1992-1995 Christmas Tree Farm Manager
- 1992-95 Actively participated SAF accreditation of FNR program
- 2002-04 Actively participated in SAF re-accreditation of FNR prog.
- 1985 to present Numerous periodic review, tenure/post tenure committees.

***Swanton Pacific Ranch/ School Forest Responsibilities***

- Serve as Swanton Pacific Forest Projects Coordinator from 1987 to present.
- Responsible Registered Professional Forester for ongoing forestry activities.
- Supervise completion of Timber Harvest Plans grossing \$6,000,000 income to date for Swanton and Valencia. I am a co-author of the NTMP reports for Swanton Pacific Ranch (approved May 2008) and Valencia Timber Project (approved June 28, 2001). I also co-authored the Lower Little Creek Project THP report (2004/05).
- I actively participated in the effort to obtain Forest Stewardship Council certification for Swanton Pacific Ranch. I remain involved in annual FSC audit reviews.
- Supervise several research projects
- Supervise numerous Senior Projects and internships at Swanton Pacific Ranch. Senior Project and internship work is tied to forest management activities occurring at the ranch
- Participate in numerous class field trips (FNR 260, FNR 365) to review forest management activities at Swanton and other locations in California. Present lecture and laboratory field exercises for students in the summer FNR 475 course titled Sustainable Forest Practices and Environmental Protection
- Present talks to community and professional groups about Swanton Pacific
- Member of CAGR Swanton Pacific Ranch Management Team.
- Completed a CARE Grant project with Brenda Smith titled: "Efficacy and environmental impacts of herbicide application methods for control of tanoak (*Lithocarpus densiflorus*). A peer reviewed paper on this topic was presented at the 1996 California oak Symposium.
- Presented papers at the 1996, 2004 and 2011 Redwood Science Symposiums focused on "Implementing and Monitoring Uneven-aged Coast Redwood Management at Cal Poly's School Forest." A paper was also presented at the 1997 IUFRO conference on uneven-age forest management held at Oregon State University.

***University and College Responsibilities***

- 2011--Led effort to form a new NRES department merging the Natural Resources Management with the Earth and Soil Science Dept.

- 2007 to 2008--Served as the Internal Reviewer for the Cal Poly Landscape Architecture Accreditation and Program Review
- 1998 to present--CAFES Land Use Committee
- 2003 to 2005--CAGR Graduate Program Review Comm.
- 2003 to 2005--CAGR Task Force to Revise/Update Personnel Policies
- 2003 to 2005--University Diversity in the Curriculum Committee
- 2001 to 2004--Athletic Governing Board
- 1993 to 2001--Member of CAGR Peer Review Committee
- 1986 to present--Graduate Student Advisor to fourteen graduate students
- 1986 to present--Numerous college and university recruiting trips
- 1989 to present--Participate in FFA Spring/Summer State Conventions
- 1996 to 1998--Member of University Task Force on Distance Learning
- 1996 to 1998--Member of Landscape Advisory Committee
- 1987 to 1995--Member of CAGR Research Committee
- 1987 to 1995--Member of CAGR Graduate Committee

### **Continuing Education Activities (last 10 years)**

***Professional Training*** (Obtained from Cal Poly, Forest Service, Society of American Foresters, U.C. Extension, CSU Faculty Development and Other Sources)

I have taken 42 shortcourses since completing my Ph.D. studies in 1977. These shortcourses have been in the general areas of Leadership, Human Relations and Management; Forest Management; Fire Suppression; Environmental Impact Analysis; Teacher Instruction; and Technical Writing. A complete listing of the shortcourses I have completed as part of my continuing education efforts is available upon request. In the last ten years I have completed:

- Served as a facilitator for the Dale Carnegie Course at Cal Poly January through April 2004.
- Grant Writing Workshops
- ACE Chairing the Academic Department training in February 2002
- CSU Managing in a Unionized Environment in December 2001
- Forest Road Location in Smithers British Columbia in August 2000
- Dale Carnegie Course at Cal Poly--January thru April, 1994
- NEPA Quality Workshops (USDA Forest Service Program), 11/27-30/90, in San Diego
- Applying the NEPA Process (Shipley and Associates Shortcourse), 12/91, McCall, Idaho
- Maintaining Instructor Effectiveness from Dr. Don Maas--January thru April, 1994
- Project Learning Tree Environmental Educator Workshop, Camp Pythian, Sequoia National Forest--August 11-12, 1989 and at Cal Poly--December, 1993.

### ***Participation and Attendance at Meetings***

- Attended May 19, 2012 Sonoma County Day at Bohemian Grove for invited guests.
- Attended, participated and presented a paper at the 2012 California Licensed Foresters Association (CLFA) Annual Conference.

- Attended and took 8 Cal Poly FNR Students to the Fall 2012 national convention of the Society of American Foresters in Honolulu, Hawaii. Presented a paper at this convention.
- Served as a coordinator, planner, moderator and presenter at the June 2011 Redwood Symposium held at UC Santa Cruz.
- Attended and took ten Cal Poly FNR students to the Fall 2011 national convention of the Society of American Foresters in Albuquerque, New Mexico.
- September 30 to October 3, 2009—Attended and took 4 Cal Poly FNR students to the national convention of the Society of American Foresters in Orlando, Florida.
- November 5-8, 2008—Attended and took 6 Cal Poly students to the national convention of the Society of American Foresters in Reno, Nevada.
- May 22, 2008—Served as moderator for the Climate Change Forum in Sacramento, California sponsored by the California Forest Products Commission for legislators and their staffers.
- June 2008— Attended and led the WNAUFRP meeting at the University of Alaska-Fairbanks.
- January 2008—Presented approximately 20 forestry lectures at the Seinajoki University of Applied Sciences (Ilmajoki and Toumarniemi campuses)
- October 2007—Attended NAUFRP annual meeting and national meeting of the Society of American Foresters in Portland, Oregon
- June 2007—Chaired and participated in WNAUFRP meeting at Utah State University in Logan, Utah.
- Attended from 2007 to 2011 monthly Board of Forestry and Fire Protection meetings in Sacramento.
- September 2006—Served as a co-author for a paper delivered at the 6<sup>th</sup> California Oak Symposium
- August 2006--Planned and led a UC Cooperative Extension and Cal Poly sponsored workshop for central coast oak woodland owners.
- September to December 2006--Completed a teaching and applied research sabbatical leave assignment in the Tuomarniemi School of Forestry and Ilmajoki School of Agriculture at Seinajoki University of Applied Sciences in Finland.
- June 2005--Attended meetings and made presentations at Seinajoki Institute, Finland.
- Attended the 2005 SAF national convention and NAUFRP meetings in Fort Worth, Texas
- Attended and made a presentation at the August 2005 Board of Forestry meeting held in San Luis Obispo, CA.
- Attended and led Fall 2005 SoCal SAF meeting and tour at the Jet Propulsion Laboratory in Pasadena.
- Attended, led and presented a paper at the Spring 2005 SoCal SAF meeting held at the Riverside Fire Laboratory and San Bernardino Museum.
- Attended 2004 national SAF convention and associated NAPFSC meetings in Edmonton, Canada.
- Attended 2002, 2004 Biennial McIntire Stennis meetings in Washington D.C.
- Attended the 2003 national SAF convention in Buffalo, New York, and associated NAPFSC meetings.
- Served as Program Coordinator for SoCal SAF Fall and Spring 2004 meetings. The Fall 2004 SoCal SAF meeting focused on emerging technologies. The meeting was hosted by ESRI in Redlands CA.



- Served as Program Chair and presented paper at the SoCal Society of American Foresters Fall 2003 workshop and field trip titled “Managing Changing Forests in Southern California
- Attended, moderated, planned, and presented talks at the 2003, 2004 and 2005 Pitch Canker Task Force meetings.
- Attended and presented a paper at the 2002 national meeting of the Society of American Foresters in Winston-Salem, North Carolina and associated NAPFSC meetings.
- Attended and presented a paper at the August 2002 meeting of the San Joaquin chapter of the Society of American Foresters.
- Attended and presented lectures at Tuskegee Institute, Alabama, November, 2002.
- Attended and presented a field tour talk on ongoing MHDSF research to the California Board of Forestry at their September 10, 2002 meeting at MHSF.
- Attended the July 2001 Western section meeting of the National Association of Professional Forestry Schools.
- Attended and presented a field tour talk on Cal Poly/Swanton Pacific Forest Management to the California Board of Forestry on May 8, 2001
- Attended and presented two papers at the Pitch Canker conference held at California State University-Monterey Bay.
- Attended and presented two papers at the Fire Conference 2000 in San Diego, CA.
- Attended and presented an exhibit at the 1999 Society of American Foresters national convention in Portland, Oregon.
- Attended and presented a talk at the May 1999 Giant Sequoia Ecology Cooperative meeting held at Calaveras State Park.
- Attended and presented a paper at the April 1999 North American Wildlife and Natural Resources conference held in San Francisco, CA. Sponsored by the Wildlife Management Institute.
- Attended the 1997 USDA Forest Service National Silviculture Workshop, Warren PA.
- Attended 1997 NACTA annual workshop meeting, Iowa State University.
- Attended the 1997 IUFRO Uneven-aged Management Symposium, Oregon State University
- Attended the 1996 Coast Redwood Conference held at Humboldt State University
- Attended the 1996 Tall Timbers Fire Ecology conference in Boise, Idaho
- Traveled to the Philippines in 1995 sponsored by Dole Food Company.
- Presented a paper on Distance learning in Mazatlan, Mexico in 1995.
- Attended the 1994 Coast Redwood work conference (by invitation only)
- Attended the 1992 Giant Sequoia--Their Place in the Ecosystem and Society symposium
- Attended and presented paper and poster at Fourth Biennial Conference of Research in California's National Parks. September, 1991. Davis, California.
- Presented expert witness at 1991 Congressional Hearing on Giant Sequoia.
- Presented expert witness testimony for Louisiana Pacific Corp. at 1990 Board of Forestry
- Attended numerous national conventions of the Society of American Foresters (1989 to present).
- Attended numerous meetings of the National Association of University Forest Resources Programs-NAUFRP (1994 to present)
- Participated in Society (statewide) meetings of the Society of American Foresters

- Participated in Los Padres and High Sierra chapter meetings of the Society of American Foresters
- Participated (regularly) in Cal Poly Commencement Ceremonies
- Participated in Department, College and University meetings and functions
- Participated in numerous scientific and professional conferences (1970 to present)

### **Publications, Technical Reports, Study Guides, Invited Presentations/Posters, Web Pages, Opinion Editorials**

**(1970-2012):** 42 Publications (6 of which are in preparation or review), 39 Technical Reports, 70 Invited Papers/Posters (i.e., speaking engagements), 15 Study Guides/Lab Manuals/Web Pages completed during my career to date, 11 Opinion Editorials, numerous radio and TV interviews, numerous news stories. I have also served as featured applied forest scientist in the: 1.) Modern Marvels 2004 Logging Technology documentary; 2.) Forest Foundation and California Forest Products Commission DVD titled “Rethinking Forests” in July 2008; and 3.) the March 2009 Fox Sport Science program. Additionally, I have been involved in 12 consulting projects. A list of these publications, study guides, technical reports, and invited papers is provided below.

1. Camilli, K., J. D. Soderlund, D. Wood, J. Kral, and D. D. Piiro. 2012. First record of *Serropalpus substriatus* Haldeman, 1848 (Coleoptera: Melandryidae) on giant sequoia *Sequoiadendron giganteum* (Lindl.) J. Buchholz (Cupressaceae): New larval host. Accepted for publication in *Pan-Pacific Entomologist*.
2. Standiford, Richard B.; Weller, Theodore J.; Piiro, Douglas D.; Stuart, John D, technical coordinators. 2012. Proceedings of coast redwood forests in a changing California: A symposium for scientists and managers. Gen. Tech. Rep. PSW-GTR-238. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture. 675 p.
3. D. D. Piiro, S. E. Sink, D. Ali, S. Auten, C. Hipkin, and R. Cody. 2011. Using FORSEE and Continuous Forest Inventory Information to Evaluate Implementation of Uneven-aged Management in Santa Cruz Coast Redwood Forests. The peer reviewed paper published in the USDA Forest Service General Technical Report PSW\_GTR-238.
4. D. D. Piiro. 2011. Thinning Keeps Forests on Course. *California Forests*. Winter Issue, Volume 15, Number 1.
5. Loe, V. E. Wise, J. Pinkerton, D. Yun, U. Lund, W. Mark, S. Valkonen, and D. Piiro. Management Strategies for Pitch Canker Infected Ano Nuevo Stands of Monterey Pine (in preparation for submittal to *Forest Ecology and Management*).
6. Hurstak, R., D. D. Piiro, S. Stephens, and R. Taskey. Canopy Gap Characteristics in Two Giant Sequoia Groves with Differing Cultural Histories (in preparation).

7. Piirto, D. D., J. Soderlund, R. Hurstak, G. Roller, S. Stephens, S. Gill, and U. Lund. Understory plant response to thinning and prescribed burning in giant sequoia-mixed conifer stands (in preparation).
8. Piirto, D. D., J. Soderlund, G. Roller, S. Stephens, S. Gill, U. Lund and R. Hurstak. Overstory tree growth and yield response to thinning and prescribed burning in giant sequoia-mixed conifer stands (in preparation).
9. Gritz-Carlson, J., D. Piirto, and others. Evaluating Survey Protocols for Coopers and Sharp Shinned Hawks in a Giant Sequoia-Mixed Conifer Forest (in preparation).
10. Piirto, D. D., R. P. Thompson, and K. Piper. 2009. L'application du regime de la futaie irreguliere dans les sequoias sempervirens de L'Ecole Forestiere de la California Polytechnic State University. La Foret Privee, Revue Forestiere Europeenne 51(309) Sept.-Oct. 2009.
11. Rice, E., D. Piirto, R. Larsen, B. Tietje, R. Cooper, U. Lund. 2008. Identifying and Addressing Contemporary Issues in Central Coast Oak Woodland. Paper presented at the 6<sup>th</sup> California Oak Symposium. Peer reviewed proceedings.
12. Shelton, M. D., J. Ahern, D. D. Piirto, and A. England. 2006. Perceptions of Agriculture M.S. Graduates Regarding Program Quality and Learning Outcomes Attainment. NACTA Journal.
13. Valkonen, S. and D. Piirto. 2005. Structure and Development of Pitch Canker Infected Monterey Pine Stands at Ano Nuevo, California. Forest Ecology and Management 213 (2005) 160-174.
14. Stephens S. L., D. D. Piirto, and D. Caramagno. 2004. Fire Regimes and Resultant Forest Structure in Native Ano Nuevo Monterey Pine Forest, California. American Midland Naturalist 152:25-36.
15. Piirto, D. D. 2004. Forests Need Local Support, Healthy Forests Take Effort, Money. California Forests. 8(1)12-14.
16. Clarke, J. N., D. M. Graber, K. M. Nissen, D. D. Piirto, N. L. Stephenson, D. R. Tormey, and P. E. Waggoner (the Scientific Advisory Board). 2003. Advice for the Secretary of Agriculture about Management of the Giant Sequoia National Monument. USDA Forest Service. Sequoia National Forest.
17. Piirto, D. D., and R. Rogers. 2002. Achieving an Ecological Foundation for Management of Giant Sequoia Groves. Environmental Management 30(1)110-128.
18. Piirto, D. D., and R. Rogers. 1999. An Ecological Foundation for Management of Giant Sequoia Groves. USDA Forest Service, Pacific Southwest Region, Sequoia National Forest R5-EM-TP-005.
19. Thompson, R. P., J. Hanna, J. Noel, D. D. Piirto. 1999. Economic Contribution of Stand Characteristics to Property Value in the Lake Tahoe Basin. Journal of Aboriculture. 25(5)225-234.

20. Piiro, D. D. and R. Rogers. 1999. An Ecological Foundation for Management of National Forest Giant Sequoia Groves. In: *Transactions* for the 1999 North American Wildlife and Natural Resources conference. Wildlife Management Institute.
21. Piiro, D. D., J. R. Parmeter Jr., F. W. Cobb Jr., K. L. Piper, A. C. Workinger, and W. J. Otrosina. 1998. Biological and Management Implications of Fire-Pathogen Interactions in the Giant Sequoia Ecosystem. Pages 325-336 in Teresa L. Pruden and Leonard A. Brennan (eds.). *Fire in ecosystem management: shifting the paradigm from suppression to prescription*. Tall Timbers Fire Ecology Conference Proceedings, No. 20. Tall Timbers Research Station, Tallahassee, FL.
22. Piiro, D. D., Robert R. Rogers, and Mary Chislock Bethke. 1997. Communicating the Role of Science in the Management of Giant Sequoia Groves. In: *Proceedings for the National Silviculture Workshop, May 19-22, 1997*. USDA Forest Service, Northeast Forest Experiment Station, Warren, Pennsylvania. General Technical Report GTR-NE-238.
23. Piiro, D. D. R. Thompson and K. Piper. 1997. Implementing Uneven-Aged Redwood Management at Cal Poly's School Forest. In: *Proceedings of the Conference on Coast Redwood Forest Ecology and Management, June 18-20, 1996*. p 78-82.
24. Hanna, J., R. P. Thompson, D. D. Piiro, and J. E. Noel. 1997. Estimating Value Contribution of Tree and Stand Condition. A peer reviewed paper presented at the March 1996 Oak Woodlands: Ecology, Management, and Urban Interface Issues Symposium. USDA Forest Service. Pacific Southwest Research Station. Gen. Tech. Rpt. PSW-GTR-160.
25. Piiro, D. D., B. Smith, E. Huff, S. Robinson. 1997. Efficacy of Herbicide Application Methods Used to Control Tanoak (*Lithocarpus densiflorus*) in an Uneven-aged Coast Redwood Management Context. A paper presented at the March 1996 Oak Woodlands: Ecology, Management, and Urban Interface Issues Symposium. Gen. Tech. Rpt. PSW-GTR-160.
26. Piiro, D. D. 1994. Giant Sequoia Insect, Disease and Ecosystem Interactions. In *Proceedings for the Symposium on Giant Sequoias: Their Place in the Ecosystem and Society*. June 23-25, 1992. Visalia, California.
27. Childers, C. A. and D. D. Piiro. 1990. Cost-Effective Fire Management: A Case Study in Southern California. In *Proceedings for the Fire and the Environment Symposium*. March 20-24, 1990. Knoxville, Tennessee.
28. Piiro, D. 1989. Tips for Making Effective Presentations. *Jour. of Forestry* 87(10)55.
29. Childers, C.A. and D. Piiro. 1989. Cost-Effective Fire Management for Southern California's Chaparral Wilderness: An Analytical Procedure. In *Proceedings for the Symposium on Fire and Watershed Management, October 26-28, 1988*. Sacramento, California.
30. Piiro, D.D. and T. O'Keefe. 1987. Wood Energy Developments in the Central Coast Area of California. In the *Proceedings of the International Residential Wood Energy Conference* held March 4-5, 1986. Reno, Nevada.

31. Weatherspoon, C.P., Y.R. Iwamoto, and D.D. Piirto. (Technical Compilers). 1987. Proceedings of the Workshop on Management of Giant Sequoia. May 24-25, 1985. Reedley, CA. USDA Forest Service Gen. Tech. Rpt. PSW-95.
32. O'Keefe, T.G. and D.D. Piirto. 1986. Central California Oak Residue Utilization and Marketing: Better Hardwood Management from Improved Utilization. In the Proceedings of the Symposium on Multiple Use Management of California's Hardwood Resources. November 12-14, 1986. Cal Poly, San Luis Obispo.
33. Piirto, D.D., J. Hawksworth and M. Hawksworth. 1986. Giant Sequoia Sprouts. *Journal of Forestry*. 84 (9) 24-25.
34. Piirto, D.D. 1986. Wood Properties and Unique Characteristics of Giant Sequoia. In Proceedings of SAF's Management of Giant Sequoia workshop. USDA Forest Service Gen. Tech. Rpt. PSW-95.
35. Piirto, D.D., J.R. Parmeter and W. Wayne Wilcox. 1984. Basidiomycete Fungi Reportedly Associated with Living or Dead Giant Sequoia and Coast Redwood. Univ. of California, Berkeley. Forestry and Forest Products. Dept. of Forestry, Forest Products Laboratory, California, Agricultural Experiment Station. No. 55-April.
36. Piirto, D.D., W. Wayne Wilcox, John R. Parmeter, David L. Wood. 1984. Causes of Uprooting and Breakage of Specimen Giant Sequoia Trees. Division of Agricultural and Natural Resources, Univ. of California. Bulletin 1909.
37. Piirto, D.D. and W. Wayne Wilcox. 1981. Comparative Properties of Old-Growth and Young-Growth Giant Sequoia of Potential Significance to Wood Utilization. Division of Agricultural Sciences, Univ. of California. Bulletin 1901.
38. Piirto, D.D. and W. Wayne Wilcox. 1978. Critical Evaluation of the Pulsed-Current Resistance Meter for Detection of Decay in Wood. *Forest Products Journal* 28 (1) 52-56.
39. Piirto, D.D., J.R. Parmeter and W. Wayne Wilcox. 1977. Poria incrassata in Giant Sequoia. *Plant Disease Reporter* 61 (1) 50..
40. Wilcox, W.W. and D.D. Piirto. 1976. Decay Resistance in Redwood (Sequoia sempervirens) Heartwood as Related to Color and Extractives. *Wood and Fiber* 7 (4).
41. Piirto, D.D., J.R. Parmeter and F.W. Cobb Jr. 1974. Fomes annosus in Giant Sequoia. *Plant Disease Reporter* 58 (5) 478.
42. Piirto, D.D., D.L. Crews and H.E. Troxell. 1974. The Effects of Dwarf Mistletoe on the Wood Properties of Lodgepole Pine. *Wood and Fiber* 6 (1) 26-35.

### ***List of Teaching Materials***

1. Piirto, D. D. and J. Reimer. 2003. Development of a Web Page for FNR 365—Silviculture and Vegetation Management. This Web Page (500 pages) includes: syllabus, course outline, lecture notes, and field/laboratory exercises.

2. Piirto, D.D. 2003. *Silviculture Study Guide*. El Corral Bookstore, Cal Poly, San Luis Obispo, CA.
3. Piirto, D. D. 2003. *Forest Harvesting and Utilization Study Guide*. El Corral Bookstore, Cal Poly, San Luis Obispo.
4. Piirto, D.D. 2003. *Study Guide to accompany the Sharpe/Hendee Introduction to Forest and Renewable Resources textbook*. Published by McGraw-Hill Inc. 131 p.
5. Piirto, D. D. 2003. *Regulation of Forest Practices in California—Resource Assessment at the State Level*. El Corral Bookstore, Cal Poly, San Luis Obispo.
6. Piirto, D. D. 2000. *Environmental Impact Analysis Study Guide*. Published by Kendall/Hunt Publishing Company.
7. Piirto, D. D. 1999. *CDF Silviculture Training Manual*. Funding provided by the California Department of Forestry and Fire Protection.
8. Piirto, D.D. 1999. *Resource Fire Control Study Guide*. El Corral Bookstore, Cal Poly, San Luis Obispo, CA.
9. Piirto, D. D. and Karen Webb. 1998. *Development of a Web Page for FNR 201-- Introduction to Forest Ecosystem Management*. The Web Page (300+ pages) includes: syllabus, course outline, learning outcomes for each unit, lecture notes, and exercises.
10. Piirto, D. D. 1998. *Silviculture Laboratory Manual*. El Corral Bookstore, Cal Poly, San Luis Obispo, CA.
11. Piirto, D. D. 1992. *Forestry Study Guide*. Kendall/Hunt Publishing Company. 432 p.
12. Piirto, D. D. and R. Thompson. 1992. *Forest Management and Multiple-Use Planning Study Guide*. El Corral Bookstore.
13. Piirto, D. D. 1992. *Conservation Study Guide*. Second Edition. Kendall-Hunt Publishing Company. 338 p.
14. Piirto, D. D. 1989. *Conservation Study Guide*. First Edition. Kendall/Hunt Publishing Company. 338 p.
15. Piirto, D.D. 1987. *Forest Harvesting Study Guide*. El Corral Bookstore, Cal Poly, San Luis Obispo, CA.

***Opinion Editorials, Documentaries***

1. A & E Television Networks. *Modern Marvels History Channel. Logging Technology*. 2003. Cat. No. AAE-72621.
2. Piirto, D. D. *The Quiet Deforestation of California*. Featured in five radio interviews and in print for the *Central Valley Business Times* (April 29, 2008), *Mt. Democrat* (May 1, 2008), *Capital Ag Press* (May 16, 2008), and *San Francisco Chronicle* (May 11, 2008). An Opinion Editorial was also produced.

3. Piirto, D. D. Major League Baseball and the Increase in Broken Bats. A story about the issues surrounding using maple instead of ash in baseball bats. Fox Sport News. Story to be aired in March 2009.
4. Piirto, D. D. Rethinking Forests. Forests Are the Lungs of the Earth. July 2008. A 7 minute DVD presentation prepared by The Forest Foundation.
5. Piirto, D. D. 2006. We Can Hasten Forest Recovery. Seattle Post-Intelligencer ([http://seattlepi.nwsourc.com/opinion/263921\\_logging23.html](http://seattlepi.nwsourc.com/opinion/263921_logging23.html)). May 23, 2006.
6. Piirto, D. D. 2005. Lawsuits Club California Forests. The Press Enterprise (Riverside California). March 25, 2005.
7. Piirto, D. D. 2005. Sierra Nevada's Treasures Under Siege. Turlock Journal. March 5, 2005.
8. Piirto, D. D. 2005. Sierra Forests Under Siege by Lawsuits. Grass Valley Union. March 18, 2005.
9. Piirto, D. D. 2005. Forests Need Management. Kaweah Commonwealth. March 11, 2005
10. Piirto, D. D. 2004. Profits, Prevention Would Enrich Forests. The Press Enterprise. October 20, 2004.
11. Piirto, D. D. 2004. Let Forest Science Prevail. Oakland Tribune. August 17, 2004

***List of Technical Reports***

1. Soderlund, J. and D. Piirto. 2011. Response to Management Strategies in Young-Growth Giant Sequoia Stands at Mountain Home Demonstration State Forest-- Remeasurement Twenty Years after Treatment Interim Report of 2009 Field Data. Submitted to California Department of Forestry and Fire Protection (Cal Fire).
2. N. Hamey, S. Auten, D. Piirto, and W. Mark. 2008. Non-Industrial Timber Management Plan for Swanton Pacific Ranch. Submitted to California Department of Forestry and Fire Protection (Cal Fire).
3. S. Auten, D. Piirto, and W. Mark. 2000. Valencia Non-Industrial Timber Management Plan for the Valencia Parcel, Swanton Pacific Ranch. Submitted to California Department of Forestry and Fire Protection (Cal Fire).
4. Roller, G. and D. Piirto. 2001. A Twelve-Year Remeasurement of Growth Response of Young-Growth Giant Sequoia Trees to Silvicultural Manipulation. An Interim Report submitted to the California Department of Forestry and Fire Protection.

5. Hurstak, R. and D. D. Piirto. 2001. A Comparative Analysis of Canopy Gap Distributions in Two Giant Sequoia Groves. A Final Report submitted to Sierra Forest Products and Save-the-Redwoods League.
6. Piirto, D.D., and R. Rogers. 1998. An ecological foundation for management of giant sequoia groves. USDA Forest Service, Pacific Southwest Experiment Station, Berkeley, California. Gen. Tech. Rep. (*peer reviewed*)
7. Piirto, D. D. 1996. A Critical Review of the Kings River Administrative Study (KRAS) Landscape Analysis Plan. USDA Forest Service. Sierra National Forest, Clovis, CA.
8. Piirto, D. D. 1996. Reference Variability for Giant Sequoia--An Annotated Review of Literature. Final Report. USDA Forest Service. Sequoia National Forest, Porterville, CA.
9. Piirto, D. D. 1995. Silvicultural Prescriptions for the 10S18 KRAS project. A report transmitting silvicultural prescriptions to implement uneven-age management for spotted owl habitat enhancement, fuel loading and fuel ladder reduction, forest health improvement, and recruitment of healthy tree seedlings. Sierra National Forest, Clovis, CA.
10. Piirto, D. D. 1994. Silvicultural Prescriptions for the Reese Spotted Owl Project. A report transmitting silvicultural prescriptions to implement even-aged thinning and shelterwood prescriptions for spotted owl habitat enhancement, fuel loading and fuel ladder reduction, forest health improvement, and recruitment of healthy tree seedlings. All prescriptions met California Spotted Owl interim directions per the CASPO report. Sierra National Forest, Clovis, CA.
11. Piirto, D. D. 1993. Silvicultural Prescriptions for the Northeast Patterson project. A report transmitting silvicultural prescriptions to implement even-age shelterwood prescriptions for fuel loading and fuel ladder reduction, forest health improvement, and recruitment of healthy tree seedlings. Sierra National Forest, Clovis, CA.
12. Piirto, D. D., K. Piper and J. R. Parmeter, Jr. 1992. Final Report. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem; Part I - Fire Scar/Pathogen Studies. Natural Resources Management and Environmental Sciences Department, Cal Poly.
13. Piirto, D. D., A. Workinger, F. W. Cobb, Jr., and J. R. Parmeter, Jr. 1992. Final Report. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem; Part II - Pathogenicity and Genetics of Heterobasidion. Natural Resources Management and Environmental Sciences Department, Cal Poly.
14. Piirto, D. D. 1990. Interim Technical Report No. 2. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem. Natural Resources Management and Environmental Sciences Department, Cal Poly.



15. Piirto, D.D. 1989. Statement of Work for Phase 2--Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem. Natural Resources Management and Environmental Sciences Department, Cal Poly.
16. Piirto, D.D. 1989. Interim Technical Report #1--Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem. Natural Resources Management and Environmental Sciences Department, Cal Poly.
17. Dunn, A. T., and D. Piirto. 1988. The Wheeler Fire in Retrospect: Factors Affecting Fire Spread and Perimeter Formation (Final Report). Natural Resources Management and Environmental Sciences Department, Cal Poly.
18. Piirto, D.D., et al. 1987. Strategies for Eucalyptus Management at Montana de Oro State Park (Final Report). Natural Resources Management and Environmental Sciences Department, Cal Poly.
19. Piirto, D.D. and Ken Sonksen. 1984. A Conceptual Vegetation Management Plan for Sierra Summit Ski Area. USDA-FS, Sierra NF.
20. Piirto, D.D. and Dave Thom. 1984. Environmental Assessment-Gopher Control. USDA Forest Service. Sierra NF, Pineridge and Kings River Ranger Districts.
21. Piirto, D.D. 1984. Environmental Assessment-Reforestation Backlog Site Preparation and Release (Herbicides). USDA Forest Service. Sierra NF, Pineridge RD.
22. Piirto, D.D. 1983. Environmental Assessment-Site Preparation and Plantation Release (herbicides). USDA Forest Service. Sierra NF, Kings River and Pineridge Ranger Districts.
23. Piirto, D.D. and W. McCray. 1983. A Vegetation Management Plan for Deer Creek Recreation Area. USDA-Forest Service, Sierra NF, Pineridge RD.
24. Piirto, D.D. 1981. South Fork Position Statement. USDA Forest Service, Sierra NF, Pineridge RD.
25. Piirto, D.D. 1981. Stand Management Prescription-Sportsman Red Fir Stand. USDA Forest Service, Sierra NF, Kings River RD.
26. Piirto, D.D. 1980. Environmental Assessment for the Duff and Gemtun Timber Sales. USDA Forest Service, Sierra NF, Kings River RD.
27. Piirto, D.D. 1980. Environmental Assessment for the Reese Insect and Fire Salvage Sale. USDA Forest Service, Sierra NF, Kings River RD.
28. Piirto, D.D. 1980. Environmental Assessment Report and Stand Management Prescription for McKinley Grove. USDA Forest Service, Sierra NF, Kings River RD.
29. Piirto, D.D. 1979. Environmental Assessment Report for the Northeast Patterson Timber Sale. USDA Forest Service, Sierra NF, Kings River RD.

30. Piirto, D.D. 1978. Guidelines and Action Plan for Management of McKinley Grove. USDA Forest Service, Sierra NF, Kings River RD.
31. Piirto, D.D. 1977. Environmental Assessment for the Snow Timber Project. USDA Forest Service, Sierra NF, Kings River RD.
32. Piirto, D.D. 1977. Final Report to the National Park Service on Structural Failure of Giant Sequoia. U.C. Forest Products Laboratory, Berkeley.
33. Piirto, D.D. 1974. Structural Failure of Giant Sequoia Trees, Progress Reports 1-5. Internal Report No. 36.01.90. U.C. Forest Products Laboratory, Berkeley.
34. Wilcox, W.W., N.D. Oldham, and D.D. Piirto. 1973. Color Variation of Redwood Lumber, Progress Report No. 4. Technical Report No. 35.01.105. UCFPL, Berkeley.
35. Wilcox, W.W. and D.D. Piirto. 1973. Color Variation in Redwood Lumber, Progress Report No. 3. Technical Report No. 36.01.105. UCFPL, Berkeley.
36. Piirto, D.D. 1972. The Effect of Sulfur Dioxide on Two Decay Fungi. Internal Report No. 36.01.85. UCFPL, Berkeley.
37. Piirto, D.D. 1972. Redwood Pit Structure in Relation to Heartwood Color Variation. Internal Report No. 36.01.86. UCFPL, Berkeley.
38. Piirto, D.D. 1972. Annotated Bibliography on Color and Discoloration in Wood. Internal Rpt. No. 36.01.84. UCFPL, Berkeley.
39. Crews, D.L. and D.D. Piirto. 1970. Progress Report in Forestry Research in 1970. McIntire-Stennis, Cooperative Forestry Research Program. Colorado State University, Fort Collins, Colorado.

***List of Speaking Engagements, Invited Papers and Poster Presentations***

1. D. D. Piirto. 2012. Finnish Culture, Forestry, and Innovative Technologies. Paper presented at the March 9, 2012 annual meeting of the California Licensed Foresters Association. Sacramento, CA.
2. D. D. Piirto and J. Soderlund. 2012. Response to Management Strategies in Young-Growth Giant Sequoia Stands at Mountain Home Demonstration State Forest--Remeasurement Twenty Years after Treatment. Presented at the March 7, 2012 Board of Forestry and Fire Protection meeting.
3. D. D. Piirto and J. Soderlund. 2012. Response to Management Strategies in Young-Growth Giant Sequoia Stands at Mountain Home Demonstration State Forest--Remeasurement Twenty Years after Treatment. Presented at the November 2012 Society of American Foresters Annual Convention in Honolulu, Hawai'i.
4. Camilli, K.S., J. Soderlund, and D. Piirto. Dieback of Young-Growth Giant Sequoia at Mountain Home Demonstration State Forest. A poster presented at the Fall 2011 annual meeting of the California Forest Pest Action Council.

5. D. D. Piirto, S. E. Sink, D. Ali, S. Auten, C. Hipkin, and R. Cody. 2011. Using FORSEE and Continuous Forest Inventory Information to Evaluate Implementation of Uneven-aged Management in Santa Cruz Coast Redwood Forests. Paper presented at the June 2011 Redwood Symposium held at UC Santa Cruz. A peer reviewed paper has been submitted for publication in a USDA General Technical Report.
6. Piirto, D. 2011. Forestry, Natural Resources and Environmental Management Programs at Cal Poly. A paper presented at the annual conference of the Northern California State Society of the Society of American Foresters. This 2011 meeting was focused on forestry and Natural Resources Management and Environmental Sciences educational programs and their future in California.
7. Sink Scott E. and D. D. Piirto. 2010. Benefits and Challenges of Using Panopto Lecture Capture Software. A paper presented at the annual CSU Regional Symposium on University Teaching. April 24, 2010. California State University, San Bernardino California.
8. Piirto, D. 2009. Sorting Through Science to Find the Real Story, Rethinking Forests. Presentation made to the Focus the Nation-Building a Sustainable Economy II. Conference held at Cal Poly February 3-5, 2009.
9. Piirto, D. 2008. Sustainably Managing California's Forests. Presented at the annual meeting of the Redwood Remodeler's Association. June 17, 2008.
10. Piirto, 2008. Climate Change and the Role of California's Forests. A forum sponsored by the California Forestry Association, The Forest Foundation, and the California Forest Products Commission for members of the California Legislature. I served at the moderator for the May 22, 2008 session in Sacramento.
11. Piirto, D. 2007. A Personal Perspective about Finnish Forestry. A luncheon presentation at the annual meeting of the California Licensed Foresters Association in Sacramento and again at the July Forest Forum in Redding, CA.
12. Piirto, D. 2007. My Ancestral Home, Ilmajoki Finland. Special presentation to the FNR/ENVM Advisory Council, January, 2007.
13. Piirto, D. 2006. Bioenergy and Forest Management. Presentations focused on forest management, forest industries, climate change, and bioenergy (approximately 50 hours) made at the Tuomarniemi School of Forestry and Ilmajoki School of Agriculture, Seinajoki University of Applied Sciences.
14. Rice, E., D. Piirto, R. Larsen, B. Tietje, R. Cooper, U. Lund. Identifying and Addressing Contemporary Issues in Central Coast Oak Woodland. Presented at the 6<sup>th</sup> California Oak Symposium
15. Piirto, D. 2006. Sustainable Oak Woodland Management. Presented at the August 2006 UC Cooperative Extension-Cal Poly sponsored workshop for oak woodland owners.

16. Piirto, D. 2006. Natural Resources Management and Environmental Sciences, Our Quest for Excellence. A presentation made on March 3, 2006 at the California Licensed Foresters annual meeting in Sacramento, CA.
17. Piirto, D. 2005. An Update on Cal Poly Forestry/Natural Resource Education and Applied Research. A Presentation to the California Board of Forestry. August 10 and 11, 2005. Board meetings held in San Luis Obispo, CA.
18. Piirto, D. D. 2005. Fulfilling the Promise of California Forests. Presented at the July meeting of the Lumber Association of California and Nevada.
19. Piirto, D. D. 2005. Land and Forest Management Planning and Cal Poly's Swanton Pacific Ranch. Presented at Seinajoki Institute in Ilmajoki on June 16, 2005 and at the Tuomarniemi School of Forestry on June 20, 2005.
20. Piirto, D. D. 2005. Charting a Path to the Future, A Walk in the Forest. Presented at a Forest Foundation sponsored public meeting at the San Bernardino Museum on March 18, 2005.
21. Piirto, D. D., W. R. Mark, R. P. Thompson, C. Yaussi Claes, J. Wicklander. 2004. Evaluating Growth Response of Uneven-aged Managed Stands at Swanton Pacific Ranch. Presented at the Redwood Science Symposium.
22. Dicus C. and D. Piirto. 2003. Practical Silvicultural Management Solutions for Lake Arrowhead Declining Forest Health Problems. Presented at the September 2003 Fall workshop/meeting of the SoCal Section of the Society of American Foresters in San Bernardino, California
23. Piirto, D. D. 2003. Healthy Forests Initiative Forum. I participated as a panelist in a debate focused on the Healthy Forests Initiative. Sponsored by UCLA law Forum. May 14, 2003
24. Piirto, D. D. and R. Hurstak. 2003/2002. A Comparative Analysis of Canopy Gap Distributions in Two Giant Sequoia Groves. A detailed presentation was made at the June 2003 IUFRO Uneven-age Management Symposium in Espoo, Finland. An abbreviated abstract presentation was made in 2002 at the national convention of the Society of American Foresters in Winston-Salem, North Carolina.
25. Piirto, D. and G. Roller. 2002. A Progress Report on Ongoing Giant Sequoia Research at Mountain Home State Forest. A field tour presentation to the September, 2002 meeting of the California Board of Forestry.
26. Piirto, D. D. 2002. Debate or Foregone Conclusion, Giant Sequoia National Monument-A Relic of the Past or an Icon to the Future. Paper/talk presented at the August 2002 meeting of the San Joaquin chapter of the Society of American Foresters.
27. Piirto, D. D. 2002. Swedish Public Radio Interview focused on the major fires occurring in the western U.S. September, 2002.
28. Valkonen, S. and D. Piirto. 2001. Role of models in assessing the sustainability of Monterey pine (*Pinus radiata*) in mixed, pitch canker infested stands at Ano Nuevo, California. Presented at IUFRO conference in Switzerland.

29. Yun, D. and D. Piirto. 2001. Pitch canker trend analysis at Swanton Pacific Ranch. Presented at the Pitch Canker conference held at CSU-Monterey Bay.
30. Valkonen, S. and D. Piirto. 2001. Structure and development of pitch canker infected Monterey pine stands at Ano Nuevo. Presented at the Pitch Canker conference held at CSU-Monterey Bay.
31. Piirto, D. 2001. Implementing uneven-age coast redwood management in Santa Cruz County. A field tour presentation to the May 2001 meeting of the California Board of Forestry.
32. Piirto, D. D. and R. Rogers. 2000. An ecological foundation for management of national forest giant sequoia groves. Presented at the Fire Conference 2000 in San Diego, CA.
33. Piirto, D. D. et. al. 2000. Fire pathogen interactions in the giant sequoia-mixed conifer forest ecosystem. Presented at the Fire Conference 2000 in San Diego, CA.
34. Piirto, D. D. and R. Rogers. 1999. An ecological foundation for management of national forest giant sequoia groves. Presented at the 1999 Save-the-Redwoods League annual business meeting at Sequoia and Kings Canyon National Park. September, 1999.
35. Piirto, D. D., R. Rogers, M. Chislock-Bethke and T. Henry. An ecological foundation for management of national forest giant sequoia groves. A poster presentation at the 1999 National Convention of the Society of American Foresters in Portland, Oregon. The poster display was awarded second place out of 110 submitted posters.
36. Piirto, D. D. and R. Rogers. 1999. An ecological foundation for management of national forest giant sequoia groves. Presented at the 1999 Giant Sequoia Ecology Cooperative meeting held at Calaveras State Park. May, 1999.
37. Piirto, D. D. and R. Rogers. 1999. Developing an ecological foundation for management of national forest giant sequoia groves. Presented at the April 1999 North American Wildlife and Natural Resources conference. Wildlife Management Institute.
38. Piirto, D. D. R. Thompson and K. Piper. 1997. Uneven-aged coast redwood management. Presented at the IUFRO Interdisciplinary Uneven-aged Silviculture Symposium, September 15-19, 1997. Oregon State University, Corvallis.
39. Piirto, D. D. 1997. Converse Basin, its past, present and its future. USDA Forest Service. Deputy Regional Forester's Meeting held at Hume Lake, CA.
40. Piirto, D. D. 1997. Special presentation to Dr. Jerry Franklin's University of Washington Ecosystem Management Field Tour class. I presented a talk and led a field tour focused on implementing ecosystem management in Converse Basin.
41. Piirto, D. 1997. Implementing ecosystem management in a State Park setting. California Park Ranger Conference. San Luis Obispo, CA.

42. Piirto, D. D. 1997. Becoming a better teacher through the use of distance learning. A paper presented at the annual meeting of National Agriculture Teachers Association (NACTA), June 22-25, 1997. Iowa State University, Ames.
43. Piirto, D. D., Robert R. Rogers, and Mary Chislock Bethke. 1997. Communicating the role of science in the management of giant sequoia groves. Presented at the National Silviculture Workshop, May 19-22, 1997. Warren, Pennsylvania.
44. Piirto, D.D. 1997. A Critical Review of the Kings River Administrative Study Landscape Analysis Plan. A talk presented at the Sierra Ecosystem conference, January 21, 1997. Clovis, CA.
45. Piirto, D. D. R. Thompson and K. Piper. 1996. Implementing Uneven-aged redwood management at Cal Poly's School Forest. Presented at the Conference on Coast Redwood Forest Ecology and Management, June 18-20, 1996. Humboldt State University, Arcata. This paper was also presented to the USDA Forest Service South Zone annual Culturist Workshop held in Kernville, California in September, 1996.
46. Piirto, D. D., J. R. Parmeter, Jr., F. W. Cobb, Jr., K. L. Piper, A. C. Workinger, and W. J. Otrosina. 1996. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem. A paper presented at the 20th Tall Timbers Fire Ecology Conference in May, 1996. Boise, Idaho.
47. D. Piirto, B. Smith, E. Huff, S. Robinson. 1996. Efficacy of Herbicide Application Methods Used to Control Tanoak (*Lithocarpus densiflorus*) in an Uneven-aged Coast Redwood Management Context. A paper presented at the March 1996 Oak Woodlands: Ecology, Management, and Urban Interface Issues Symposium held at California Polytechnic State University, San Luis Obispo.
48. Hanna, J., D.D. Piirto, and R. P. Thompson. 1996. Economic contribution of stand characteristics to property value. A paper was presented at the March 1996 Oak Woodlands: Ecology, Management, and Urban Interface Issues Symposium held at California Polytechnic State University, San Luis Obispo.
49. Piirto, Douglas D. 1996. Distance Learning as a Tool for Technological Education. A paper presented in March, 1996 at the Second Annual Symposium on Industrial Development and Technological Innovation, Sinaloa in the Year 2001 sponsored by the Instituto Tecnológico del Mar, Mazatlan Mexico.
50. Piirto, D. D. 1995. Lessons Learned from Distance Learning. A paper presented at the Third CSU Regional Symposium on University Teaching. February 11, 1995. University Center, California State University, Fullerton, California.
51. Piirto, D. D. and R. P. Thompson. 1992 Integrated Resource Management at Swanton Pacific Ranch--A Beginning. Presented at the USDA Forest Service Silvicultural Workshop held on June 3, 1992 in Sacramento, California.
52. Piirto, D. D. 1992. Disease and Insects Associated with Giant Sequoia. A paper presented at the symposium titled Giant Sequoias, Their Place in the Ecosystem and Society on June 23, 1992 in Visalia, California.

53. Piirto, D. D. 1991. Giant Sequoia Groves, A Relic to be Preserved or A Resource to be Managed. Testimony and paper submitted at the Congressional Hearing of the Committee on Interior and Insular Affairs on September 4, 1991. Visalia, California
54. Piirto, D. D. and K. Piper. 1991. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem. A poster presentation at the Fourth Biennial Conference of Research in California's National Parks. Davis, California.
55. Piirto, D. D., J. R. Parmeter, Jr., F. W. Cobb, Jr., K. Piper, and A. Workinger. 1991. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem. A poster presentation at the 1991 National Convention of the Society of American Foresters in San Francisco, California.
56. Piirto, D. D., J. R. Parmeter, Jr., W. Cobb, Jr., K. Piper, and A. Workinger. 1991. Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem--A Progress Report. A paper presented at the Fourth Biennial Conference of Research in California's National Parks. Davis, California
57. Piirto, D. D. 1990. A Review of the Silvicultural Prescription for THP 1-90-280/MEN. Testimony and paper submitted at the September 11, 1990, hearing of the Board of Forestry.
58. Childers, C. and D. D. Piirto. 1990. Cost-Effective Fire Management: A Case Study in Southern California. Presented at the Fire and the Environment Symposium. March 20-24, 1990. Knoxville, Tennessee.
59. Piirto, D. 1989. California Forestry and Natural Resources Education in the Twenty-First Century--Responding to Change, A Cal Poly Perspective. Presented at the Symposium on Forestry Education in California. December 9, 1989. University of California, Berkeley.
60. Childers, C., and D. Piirto. 1988. Cost-Effective Fire Management for Southern California's Chaparral Wilderness: An Analytical Procedure. Presented at the Symposium on Fire and Watershed Management, October 26-28, 1988. Sacramento, California.
61. Piirto, D. 1988. The Effects of Fire on Forest Pathogens. Presented at the Fire Effects shortcourse sponsored by the Washington Institute and the USDA Forest Service.
62. Piirto, D.D. and T. O'Keefe. 1986. Wood Energy Developments in the Central Coast Area of California. Presented at the Residential Wood Energy Conference in Reno, Nevada. March 4-5, 1986.
63. O'Keefe, T.G. and D.D. Piirto. 1986. Central California Oak Residue Utilization and Marketing, Better hardwood Management from Improved Utilization. Presented at the Symposium on Multiple Use Management of California's Hardwood Resources. November 12-14, 1986. Cal Poly, San Luis Obispo.
64. Piirto, D.D. 1985. Herbicides Are Not Always Needed. Presented at the Sierra NF Fall Timber Conference.

65. Piirto, D.D. 1985. Wood Properties and Unique Characteristics of Giant Sequoia. Presented at the SAF Management of Giant Sequoia shortcourse at Kings River Community College, Reedley, California. May 24, 1985.
66. Piirto, D.D. 1982. Multiple Use Management in Regenerated Stands. SAF-High Sierra Chapter Workshop. Served as program coordinator and discussion leader.
67. Piirto, D.D. 1976. Factors Associated with Tree Failure of Giant Sequoia. Presented at the First Conference on Scientific Research in National parks. New Orleans, Louisiana. November 1976.
68. Piirto, D.D. 1976. Factors Associated with Tree Failure of Giant Sequoia. A poster exhibit presented in Mulford Hall Forestry Library Fall 1976.
69. Piirto, D.D. 1974. Structural Failure of Giant Sequoia. Presented at the Third North American Forest Biology Workshop. Colorado State University, Fort Collins, Colorado.
70. Piirto, D. D. 1971. The Effects of Dwarf Mistletoe on the Wood Properties of Lodgepole Pine. A seminar thesis defense presentation and poster exhibit at Colorado State University, Fort Collins.

### **Consulting and Community Service**

1. Bohemian Club NTMP Review. April/May 2012. Report received favorable reviews from the Bohemian Club Executive leadership and members, professional foresters, Cal Fire officials and the general public
2. Cambria Monterey Pines 2005-06. I was hired as an expert witness on two separate cases involving timber trespass and damage to forest resources on private property. Several Cal Poly students were involved in this consulting assignment.
3. Louisiana Pacific Corporation: Hired to undertake, as a Consulting Forester, a field review and provide expert testimony before the September 11, 1990 Board of Forestry meetings. My report was titled "A Review of the Silvicultural Prescription for THP 1-90-280/MEN."
4. Melton Sierra Nevada Project 2004. This has turned out to be an excellent "learn-by-doing" project as I have been able to involve several Cal Poly undergraduate students. One student has completed his Senior Project on this project. And a special FNR 400 Individual Study has also developed in response to this project.
5. Smith and Duckles Sebastopol Case: I was hired as a Consulting Forester to undertake a field review and develop a report for presentation at the 10/8/91 Sebastopol City Council meeting.
6. Congressman Richard H. Lehman: I was asked to develop a report and present expert testimony before a Congressional Hearing of the Committee of Interior and Insular Affairs on September 4, 1991, in Visalia, California. The hearing focused on issues and concerns of giant sequoia federal land management. My report was titled "Giant Sequoia Groves, A Relic to be Preserved or A Resource to be Managed."



7. Dr. David Lawrence, M.D.: I was hired to undertake a stand exam and develop a prescription for the coast live oak stand surrounding his estate. Work completed on June 7, 1988. Two Cal Poly students assisted with this consulting assignment.
8. Washington Institute: I have been hired on a recurring basis (starting in 1988) as an instructor to assist with Fire Effects and Technical Fire Management shortcourses put on by the institute.
9. USDA Forest Service: I am hired on intermittent and recurring basis to undertake special assignments (1985 to present). I have developed and implemented silvicultural prescriptions for Reese CASPO project, Kings River Administrative Study ecosystem management project, Northeast Patterson ecosystem management project, and several other projects on the Sierra National Forest and Sequoia National Forest.
10. California Department of Forestry and Fire Protection; I am hired on an intermittent and recurring basis to serve as an Instructor for identified forestry shortcourses.
11. 1990 to present--I have been and will continue to be actively involved in forums to educate the public on what is forestry and to describe the effects of forest regulation on forests and forest landowners. I was interviewed by radio and newspaper reporters as to my views on the 1990 forestry initiatives. I believe my participation had an impact, and I received several thank you letters for my involvement. Examples of community service include participation in Arbor Day events, presentations to local Kiwanis Clubs, tour leader for major conservation field trips such as Santa Cruz Resource Conservation District tour, presentation to the San Luis Obispo Range Improvement Association, to name a few.
12. I have been asked to conduct numerous peer reviews for various scientific journals, symposium proceedings, and agency requests (e.g., California Regional Water Quality Board).

#### Community Service

1. Member of the Atascadero Elks Lodge.
2. 1990 to present--Examples of community service include participation in Arbor Day events, presentations to local Kiwanis Clubs, tour leader for two major conservation field trips, presentation to local politicians regarding forest management, presentation to the San Luis Obispo Range Improvement Association, presentations to the California Board of Forestry etc.
3. 1985 to present--Issue certificates to students who complete NR 204, Fire Control. This certifies that the student has met entry level wildland firefighter requirements. I also issue certificates in the NR 260 Forest harvesting class completing the Road Location segment of that course.

#### Honors, Recognition and Credentials

- 2011 Lifetime Achievement Fellow Award from the Society of American Foresters.
- Recipient of a 2009 Certificate of Appreciation from the USDA Forest Service for serving on the Giant Sequoia National Monument Science Advisory Committee.
- Appointed to: 1.) Science Advisory Committee for the Giant Sequoia National Monument (i.e., FACA Advisory Group); 2.) State Forest Advisory Committee; 3.) State Pitch Canker Task Force; 4.) Giant Sequoia Ecology Cooperative; 5.) California Board of Forestry and Fire Protection
- Recipient from USDA CSREES 2004 Certificate of Appreciation recognizing my support provided for the McIntire Stennis ATR Biennial Meetings;

- Recipient of the 2000 Plant Science Award for Outstanding Service to the College of Agriculture at Cal Poly.
- Recipient of the 1995 Cal Poly College of Agriculture Outstanding Teacher award sponsored by Dole Food Company.
- Recipient of a 1988/89, 1995/96, 1996/97, 1997/98, 1998/99, and 1999/2000 Cal Poly Faculty Meritorious Performance awards.
- Promoted (early) to Professor with tenure September, 1989.
- Registered Professional Forester in California, RPF 2179
- Certified Forester, Society of American Foresters
- Certified Silviculturist, USDA-Forest Service, Region V, 2/82; recertified 7/91
- California Community College Instructor Cred., No. 25 9 PII 001, December, 1979
- SAF Continuing Education Certificates, 1978-1981, 1982-1985; 2002, 2005, 2008, 2011.
- Contributed articles to trade, professional and scientific journals
- Listed in Who's Who in America and other biographical publications
- Licensed for chain saws, power augers, trailer towing, snow mobiles operation
- USDA-FS Firefighter ratings: Crew Boss, Resource Unit Leader

### **Professional Organizations (last 10 years)**

- Society of American Foresters
- Forest Products Research Society
- Society of Wood Science and Technology
- Sigma Xi, The Scientific Research Society of North America
- Xi Sigma Pi
- Beta Beta Beta
- Alpha Zeta

### **Professional Growth 1986-2012 (Total Piirto Project Funding = \$1,144,067; Research Program Management = \$2,520,000)**

1. 2012. Hind River Ranch Management Plan: Phase 1 – GIS Management Project. \$65,013.
2. 2010. Using FORSEE and Continuous Forest Inventory Information to Evaluate Implementation of Uneven-aged Management in Santa Cruz Coast Redwood Forests. A \$30,000 three-year McIntire Stennis grant.
3. 2008—Response to Management Strategies in Young-Growth Giant Sequoia Stands at Mountain Home Demonstration State Forest-Remeasurement 20 years after Treatment. A \$56,000 grant from the California Department of Forestry and Fire Protection.
4. NRES Department Administrator for the campus McIntire-Stennis program (approximately \$110,000 of annual federal funds coming to Cal Poly). This totals to approximately \$1,320,000 during my time as Department Head.
5. 2006 I led the university effort to become a member of the federal Cooperative Ecosystems Studies Unit (CESU) which has significant potential of bringing in

millions of dollars of federal funding for a variety of applied research and demonstration projects.

6. 2006 University of California Cooperative Extension. \$6500. Identification and Addressing Contemporary Issues in Central Coast Oak Woodlands.
7. Annual California Department of Forestry and Fire Protection Student Assistant Program since 2001 to date approximately \$800,000.
8. 2004 USDA Forest Service Central California Employment Outreach to Achieve a Diverse Workforce. \$5,000.
9. 2003 Management Strategies and Understory Growth Response in Young-Growth Sequoia Stands at Mountain Home Demonstration Forest. An ARI grant for \$47,000.
10. 2003 Raptor Habitat Selection Project in Young-Growth Sequoia Stands at Mountain Home Demonstration Forest. A CDF grant for \$30,000.
11. 2001 Agricultural Research Initiative for the California State University System (ARI grant of approximately \$156,851.07). A second matching fund grant to complement the five-year CDF study titled "Silvicultural management strategies for pitch canker infected Ano Nuevo stands of Monterey pine." This study is being done in cooperation with the Finnish Forest Research Institute.
12. 2001 California Department of Forestry and Fire Protection Grant (\$49,707) titled "Response to Management Strategies in Young-Growth Giant Sequoia Stands at Mountain Home State Forest--Remeasurement Twelve Years After Treatment."
13. 2000 Agricultural Research Initiative for the California State University System (ARI grant of approximately \$114,000). A matching fund grant to complement the five-year CDF study titled "Silvicultural management strategies for pitch canker infected Ano Nuevo stands of Monterey pine." This study is being done in cooperation with the Finnish Forest Research Institute.
14. 1999 California Department of Forestry and Fire Protection (\$275,000) to conduct a five-year study titled "Silvicultural management strategies for pitch canker infected Ano Nuevo stands of Monterey pine."
15. 1999 McIntire Stennis grant (\$13,942) titled "Develop and Test Accuracy of Redwood and Douglas-fir Volume Equations for Swanton Pacific Ranch." A proposal jointly submitted with Dr. Samantha Gill. Phase three of a four phase project. Project ongoing.
16. 1999 Foster grant (\$2500) for the College of Agriculture, Cal Poly State University to develop a Web page for use with the FNR 365 Silviculture and Vegetation Management course.

17. 1998/99 California Department of Forestry and Fire Protection grant (\$30,000) to develop and present a Silviculture short course for CDF Forest Practice Inspectors
18. USDA Forest Service grant (\$30,000) to cover my 1997/98 sabbatical leave expenses to work on a project titled "Giant sequoia reference variability--bridging science, communication and application." A paper in the peer review process has been developed titled "An ecological foundation for management of national forest giant sequoia groves."
19. 1998 McIntire Stennis grant (\$8,000) titled "Develop and Test Accuracy of Redwood and Douglas-fir Volume Equations for Swanton Pacific Ranch." A proposal jointly submitted with Dr. Samantha Gill. Phase two of a four phase project. Project ongoing.
20. 1997/98 Sierra Forest Products grant (\$10,000) titled "Recreating canopy openings in a disturbed giant sequoia grove-a comparative study of vegetation mosaic between Converse Basin and Redwood Mountain." Project ongoing.
21. 1997/98 Save-the-Redwoods League grant (\$10,000) titled Recreating canopy openings in a disturbed giant sequoia grove-a comparative study of vegetation mosaic between Converse Basin and Redwood Mountain. Project ongoing.
22. 1997 McIntire Stennis grant (\$1,500) titled "A Study Plan to Develop and Test Accuracy of Redwood and Douglas-fir standard volume equations for Swanton Pacific Ranch. A proposal jointly submitted with Dr. Samantha Gill. Phase one of the four phase project. Project completed.
23. 1996/97 McIntire Stennis grant (\$1,000) titled "Establishing Reference Variability for Giant Sequoia Groves". Paper to be presented at the May 1997 National Silviculture workshop to be held in Warren, PA. The paper will appear in the proceedings. A paper has been published. Project completed.
24. 1995/96 McIntire Stennis grant (\$1,500) titled "Fire/Pathogens Interactions" presentation at the 1996 Tall Timbers Fire Conference. A paper has been published. Project completed.
25. 1993/94 California Department of Forestry grant (\$75,000) titled "Land Values, Homeowner Concerns, and Stewardship of the Ponderosa Pine/Mixed Conifer Interface Forest of California. Final Report completed. One peer reviewed paper has been published and a brochure has been developed. Project completed.
26. 1993/94 McIntire Stennis grant (\$3,068) to develop a research paper titled "Uneven-aged Management of Coast Redwood Forests." Paper presented and published in the proceedings for the Coast Redwood Ecology and Management conference held in June, 1996 at Humboldt State University. Project completed.
27. 1988/89 Cooperative Agreement (\$110,000 over three years with the USDI National Park Service) titled "Biological and Management Implications of Fire in the Giant Sequoia Ecosystem." The study and Technical Reports have been completed. Two peer reviewed papers have been published in proceedings for the 1992 Giant Sequoia symposium and the 1996 Tall Timbers Fire Ecology symposium. Project completed.

28. CARE Grant (\$3,975) titled "Efficacy and environmental impacts of herbicide application methods for control of tanoak (*Lithocarpus densiflorus*) at Swanton Pacific Ranch." Final Report has been completed. A peer reviewed publication appeared in the recent 1997 Oak Woodlands: Ecology, Management, and Urban Interface Issues symposium proceedings.
29. 1991 McIntire-Stennis Grant (\$1,000). Funding provided for research paper preparation and travel. Project completed.
30. 1990 McIntire-Stennis Grant (\$4,000). Fire/Pathogen Interactions. Supplemental funding for NPS study. Two peer reviewed papers have been developed. Project completed.
31. 1988/89 McIntire-Stennis grants (\$9,000) titled Wilderness Fire Economics. Final Report submitted. Two peer papers on this project have been published Project completed
32. Educational Grant (\$500) to internationalize Cal Poly's NRES 101 course titled Natural Resources of America. Revisions to course syllabus and to course content have been completed. Project completed.
33. Cooperative Agreement (\$7,961) between the USDA Forest Service and Cal Poly titled "Gross Fire Behavior Characteristics of Large Fires in Southern California". A Final Report has been developed. A paper is presently in the peer review process.
34. Boswell Agricultural Education Foundation Grant (\$4500) to develop "Conservation Study Guide" for the NRES 101 and NRES 521 courses at Cal Poly. The Guide was also developed for use by high school vocational agriculture and environmental education teachers. Three editions of this Study Guide were completed and used from 1988 to the present. Project completed.
35. Boswell Agricultural Education Foundation Grant (\$2,000) to purchase computer equipment in support of teaching/research activities. Project completed.
36. Boswell Agricultural Education Foundation Grants to continue development of two Forestry Study Guides (\$1550) and to purchase video instructional programs (\$550). Project completed.
37. California Department of Parks and Recreation (\$5,000). Strategies for Eucalyptus Management at Montana de Oro State Park. A Final Report was developed. Project completed.

**Performance Expectations (refer also to my Professional Growth Plan)**

1. *Self Appraisal*: Effective teacher, respected forester/natural resources manager, capable researcher, capable administrator.
2. *Strengths*: Persistence, communication skills, pragmatic field forestry/Natural Resources Management and Environmental Sciences skills and knowledge, analytical skills, organizational skills, human relations skills.
3. *Areas to Enhance*: Keeping up with changing technologies (e.g., GIS, GPS, computer upgrades)

4. *Objectives to Improve Effectiveness:* Attend management training shortcourses; establish and adhere to work priorities; maintain Professional Forester and Certified Forester/Silviculturist credentials; attend annual meetings of SAF and other natural resource organizations; show leadership by actively participating in officer roles; continue consulting work as opportunities and time allow; seek out advancement and research funding opportunities; publish 1 paper/year; seek out graduate student assistance to fulfill research obligations while in administrative position; seek out and participate in international assignments.