Dear Alumni, since my arrival in Arcata three years ago, I have been deeply impressed by our students, staff, and faculty. The willingness to work hard, the adaptiveness, and the idealistic commitment to become stewards of the state’s natural resources has not diminished since the first forestry classes in the 1950s. It is an honor and a pleasure to work with them.

Your old department is doing well. Enrollment in our undergraduate forestry program has increased over the last three years and we now serve 275 undergraduate students, a larger number than Cal Poly (140) and Berkeley (45) combined. Further, 84% of the RPFs in the state are from HSU. Lastly, we have the only undergraduate degree program in Range Management in the state. In short, we remain a major player in the education of the state’s next generation of natural resource professionals.

Our alumni are an important part of who we presently are. It is not just that we strive to maintain the high standards you set for us; Forestry and Range are among the few disciplines (Geology and Engineering also come to mind) where the sense of camaraderie is so strong that it is routine for graduates to keep in touch with one another as well as with their old department. This support of the department can be quite direct; we presently have three alumni teaching as forestry faculty members in their off-hours from their day jobs in industry: Gary Rynearson (class of 1978), Dan Opalach (1980), and Justin Kostick (2006). (One is not surprised that the wealth of experience they bring from decades of work in the private sector has led to some of the highest student evaluations in the Department.) There are two other alumni teaching for us: Dr. Kevin Boston, class of 1984, whose subsequent experience includes a law degree, and Sungnome Madrone (1975), who teaches several of our hydrology courses. Connections are often more casual but no less important: having alumni attend events such as last spring’s Logger’s Ball are important opportunities for students, as they talk with alumni, to benefit from the experience of their predecessors. And of course, there is the financial generosity of our alumni which permits us to give far more money at our annual Awards Banquet than other HSU departments, and makes quite a difference in the lives of the recipients.

Upcoming events for 2017-18 include the reception at the SAF convention in Albuquerque, New Mexico on Thursday evening November 16 (exact time to follow), the SCLC breakfast in Redding on Friday, February 9 2018, and the Loggers Ball in Eureka on a weekend in early April (date not yet set).

To keep you abreast of what is happening at your alma mater, I am resurrecting what I intend will be an annual newsletter. Feedback of any sort is welcome.

David Greene, Chair, Forestry and Wildland Resources.

Department News:

- Forest Soils Scientist Joins HSU As New CNRS Dean:
Richard Boone, Professor of Ecosystem Ecology in the Department of Biology and Wildlife and the Institute of Arctic Biology at the University of Alaska Fairbanks (UAF), joined Humboldt State University as the next Dean of the College of Natural Resources & Sciences in July 2016.

Dean Boone brings a great deal of experience to HSU—he has a strong background in forest ecology, biogeochemistry, trans-national Arctic education, and support for both undergraduate and graduate education. He previously served as Chair of Biology & Wildlife and Associate Dean of Undergraduate Studies in the College of Natural Science and Mathematics at UAF. In addition, he was the Acting Deputy Director, Division of Graduate Education (2014-2015); Program Director of the National Science Foundation Research Traineeship Program (2014-2015); and Program Director of the Integrative Graduate Education and Research Traineeship (IGERT) Program (2011-2015) at the National Science Foundation. He received his A.B. in Biology from Oberlin College, M.S. in Forest Ecology from Oregon State University, and Ph.D. in Forest Soils from the University of Massachusetts.

- Jerry Partain, who helped establish Humboldt State’s Forestry bachelor’s degree and turn the program into a longstanding success, died on July 4, 2016 at the age of 91. Partain was hired in 1953, when coffee cost students 7 cents a cup, to teach with Ed Pierson, a man who had recently begun a two-year forestry technical program. Together, the two worked to turn forestry into a four-year program in the 1957-58 school year (the main impediment being Berkeley’s desire to maintain a monopoly on forestry education in California) and the first batch of students—5 in January 1959 and 10 in June 1959, all received their bachelor’s degrees during graduation ceremonies in June 1959 (see Bob Archibald’s comments below). One of the curricular distinctions of the HSC Forestry Program was the extensive use of weekly field trips and laboratory exercises whereas UC Berkeley and Oregon State relied on the summer field camp during the junior to senior transition. Therefore, the HSU forestry graduate had extensive experiences working in the woods as a field, or “dirt” forester. Many forest production companies and forestry consulting firms preferentially hired the HSC forester because of this educational training. Today the HSU Forestry Program still maintains that field forester curriculum.

In Partain’s published recounting of the history of the program, *Forestry at Humboldt State (2004)*, he laid out the early trials and tribulations of the HSC forestry program, from acquiring the first truck to haul students out to timber sites to an arson fire that partially destroyed the Forestry Building in late January 1979. The original Forestry Building was opened in the 1962-63 school year and the beautiful wood paneling made of special plywood from madrone, myrtlewood, redwood, tanoak, California black oak, and chinquapin, all local woods, was used extensively in the hallways. Unfortunately, the arson fire destroyed most of it and that type of paneling could not be found for the post-fire reconstruction. Tongue-and-groove dimensional woods were used from many of the same tree species.

Jerry left the university in 1983 to take a job as Director of the California Department of Forestry & Fire Protection (now known as Cal Fire). But during his tenure at HSU the Forestry department became accredited (1979) by the national Society of American Foresters. “This accreditation and the success of our graduates helped put Humboldt State College on the world map and helped greatly to establish the present Humboldt State
"University," Partain wrote. National accreditation of the Forestry program at HSC/HSU was a critical factor in the elevation of the institution from "college" to "university" status some 30 years ago. Indeed, we still remain the emblematic program at HSU.

The Forestry department provided a strong background in general education, the sciences and the practical and academic aspects of forestry. Graduates went on to graduate work at universities around the world. They have been successful in private and public positions, reaching top management levels in both forestry-related and other fields.

The Forestry Department grew into a well-regarded and well-enrolled program, weathering upheavals in the timber industry along the way. Midway through his tenure as Department Chair, Partain wrote, “It was time to turn to the task of converting from an old-growth economy to one dependent upon the scientific management of young timber.”

Professor Emeritus Kenneth Fulgham, who took Forest Economics from Partain (late 1960’s) and would go on to chair the Department of Forestry & Wildland Resources during 2005-2014, says Partain was a pragmatic economist who cared deeply about maintaining the forestry program. He was very bright and very much a visionary team builder, a great communicator, and really dedicated not only to forest management but the professionalism of forestry. His 1996 scholarship endowment is a testament of his caring, and students benefit from this each year. In July and August 2016 total gifting to his scholarship, including that which Partain had in his personal will, totaled over $24,000. Additional donations can be made to: HSU Advancement Foundation with the Memo line notation of A2225-Jerry Partain Scholarship Endowment.

Jim Brown (1965) said this about Partain: “I was a 17-year-old kid from LA with marginal high school grades when I first met Jerry. He was the first faculty member I would meet at HSC because he was my advisor. I still remember his stern warning to "work hard" on my grades, and his witty sense of humor. Not only did his advice work, but I also would come to view Jerry as somewhat of a father figure. Later, as Department Chair, he would hire me as a lecturer in the Forestry Department for two years. When I received a job offer from a private firm, it was Jerry who urged me to take it telling me that he was sure I would be good at it. His advice would be good since I worked my way up to retire as President of Green Diamond Resources Company.”

Ron Siemens made these comments: “My father was Cornelius Siemens who was president of HSC/HSU from 1950-1973. Jerry made the forestry department very important to Humboldt State. In fact, when the state decided to make some state colleges into universities, Humboldt did not make the initial cut. My Dad convinced Sacramento that if they had some programs in the top 10 in the U. S. that were not considered in the original criteria, Humboldt should be included. Well, Forestry was one of those programs that got HSC to become HSU. He also thought that naming it CSU-Humboldt was too "clumsy", so my Dad held his ground for Humboldt State University.”
(While we are talking about the founding of the forestry program we should not forget Ed Pierson. Ed started the HSC Forestry Program when hired in 1953 to develop a two-year technical forestry program to meet industry needs with the help of local professional foresters, members of the lumber industry, and representatives from public forestry agencies. This initial two-year degree for 60 credit hours was called Forestry-Lumbering with eight forestry classes listed (see Natural Resources at Humboldt State College: The First 30 Years (2003) by Richard L. Ridenhour, former Natural Resources College Dean and Emeritus Professor of Fisheries). By 1957-58 the program under Pierson and Partain had become a four-year B.S. in Forest Management. Pierson’s career spanned 27 years and he was instrumental in the continued development of the Forestry & Watershed Management Department. Ed retired in 1979 and died at the age of 86 on December 9, 2003 and his legacy continues with the Ed and Joan Pierson Forestry Scholarship. Donations to that scholarship can be made through the HSU Advancement Foundation with the Memo line notation of A2292-Edwin/Joan Pierson Forestry Endowment.)

- Forestry Students Begin Campus-Wide Tree Census: During the last year, students in Professor Harold Zald’s Forest Measurements and Biometry class (FOR 210) conducted a census of trees on the HSU campus. Trees were located using GPS, and then the students identified the species, and measured diameter and height.

  Productive trees sequester carbon dioxide from the atmosphere, partially mitigating greenhouse gas emissions, and are therefore a key component of reducing HSU’s carbon footprint. Measurements taken in FOR 210 will be used to estimate how much carbon is stored in HSU campus trees. In future years, re-measurement of HSU campus trees will be used to estimate carbon storage over time and monitor trends in the health of the campus forest.
The Forestry and Wildland Resources Department celebrated its students during the annual Awards Banquet on April 18. This year, the department awarded over $68,000 in scholarships to 56 deserving students. Many of these scholarships were established by alumni or in honor of alumni; e.g. the Forestry Pathfinders scholarship was created by the founding forestry class at Humboldt State; and the Gayleen Smith scholarship was created in honor of the “office mom” for the department from 2005 through 2013. A listing of all the awards and recipients is appended near the end of the newsletter.

The department also honored outstanding students: Brent Henry (Academic Excellence award in Forestry), Andrew Mueller (Professional Promise award in Forestry), Kaelie Pena (Rangeland Resource Outstanding Student), and Mariah Aguilar (Rangeland Resource Outstanding Student). Turning the tables, the students voted to award three separate honors: to Maurine Nicholson (Administrative Support Coordinator) and George Pease (Stockroom Manager) in recognition of their contributions to the department, and to Dr. Pascal Berrill as Teacher of the Year.

A very long tradition, we are still collecting business cards from our graduates and displaying them prominently in the main hallway of the Forestry building. If you have not sent us your current business card, please add yours to this impressive display of success.

**Range and Soils**

In 2016/17 our program in Rangeland Resource Science has 26 students enrolled in the Range option and 19 students in the Wildland Soils option. Range minors numbered 4 and Wildland Soils minors rose to 14.

Our Range Plant ID team took 5th place at the Society for Range Management Annual Meetings in St. George, Utah. Many thanks to Todd Golder who continues to coach the team. Our program has also benefited by having Jasmine Westbrook teach the lion's share of the range courses. Eleven students traveled to the SRM meetings and we hope to take more to the upcoming meeting in Reno, Nevada. The following Range students have just been awarded the $5000 Rustici Livestock and Rangeland Scholarship offered through the California Farm Bureau Federation: Thomas Mendoza, Darren Pinnegar, Mary Scanlan, Sierra Berry, Lawrence Griffin, and Tess Palmer.

Soils students performed well on the national Fundamentals of Soil Science exam offered this spring. All who attempted the exam passed, including Mariah Aquilar, Dustin Keeler, Lauren Quackenbush (alum), and Nichole Besyk (former graduate student). We have sustained a 100% pass rate in comparison to a national pass rate of 60% on this exam. Five soils students also attended the Soil Science Society of America meetings in Phoenix in 2016.

Many of our students are working throughout the west this summer, from Washington to Utah. Axel Sanchez and Hector Alvarez have transitioned to NRCS positions after completing their Pathways internships.

The program is officially off probationary status, but has not yet been awarded a tenure-track position, something the program sorely needs. The goal for our Range program is to achieve Society of Range Management accreditation. We easily meet 6 of 7 standards for their
accreditation; the only one lacking is having three Ph.D. level instructors in the Range curriculum.

Caption: Dr. Susan Marshall with range and soils graduates at 2017 ceremony.

**FACULTY:**

- During each Spring semester, the HSU Emeritus & Retired Faculty Association issues a Call for Applications for cash awards to support the professional development of junior faculty—lecturers and tenure track—who have demonstrated outstanding promise. This year’s winners of this award included our Dr. Lucy Kerhoulas, Assistant Professor in the Forestry and Wildland Resources Department. She will use her award for canopy research equipment—for special harnesses and ropes that will enable her to climb Douglas fir trees for her study of Sonoma tree voles at the Schatz Tree Farm in Maple Creek.

- Erin Kelly, Assistant Professor in Forestry, was designated Educator of the Year by the California Forestry Association. She received the award at the annual CFA gathering in Napa, California on March 2.

Dr. Kelly also joined the Forest Policy Committee for the Society of American Foresters (SAF), the largest professional society for foresters in the United States. The Forest Policy Committee has 10 members representing academia, industry, and non-profit organizations; members met in Washington, DC from March 6-7 to recommend federal policy priorities for SAF staff and board members to relay to federal legislators and agencies.

- The World’s Tallest Tree (on a College Campus). Humboldt State University’s northern California campus is home to the tallest tree on any college campus anywhere in the world. This was confirmed by HSU Forestry Professor and renowned tall tree expert Steve Sillett and his graduate students who have painstakingly measured and mapped the major limbs of this impressive 240 foot Sitka spruce.

At 130 years old, the spruce is a youngster compared to some of its siblings, although finding older trees can be difficult due to the spruce’s appeal on the lumber market. Spruce
is a uniquely useful wood. It has an ideal strength to weight ratio leading manufacturers to use it for paper, musical instruments, ship masts, furniture, and early aircraft. The trees are also known for their speedy growth and they are the only conifers that are capable of reaching 300 feet by 200 years old in ideal conditions. “I think this tree can do it,” says Sillett, who estimates the tree has added 10 feet since he and his students took the measurements in 2014.

- Dr. Harold Zaid of FWR was recently interviewed about his research regarding the relationships between drought, insect outbreaks, and wildlife by the independent digital media Water Deeply.
  Link to the article:

- Humboldt State University’s Range Plant Identification team placed 5th in a plant ID contest that has been described as one of the toughest in recent memory. Deedee Soto, an HSU Botany major with a range minor, placed 5th in the individual category. Coached by lecturer/NRCS Rangeland Specialist Todd Golder, other team members included Mariah Aguiar, Amanda Albright, Melissa Chase, Axel Sanchez, Eric Garcia, Monica Rodriguez, Steven Gilster, Tess Palmer, Darren Pinnegar, and Kaelie Pena. These students were enrolled in RRS 475 Advanced study of Range Plants, offered every semester as preparation for the annual contest at the Society of Range Management meeting, and taught by Mr. Golder.

Two new faculty members started in 2016/17

Dr. Lucy Kerhoulas. Joining FWR this year as one of our two new tenure-track professors, Dr. Lucy Kerhoulas was already well-acquainted with the University, having received from HSU her B.S. in Botany in 2006 and M.S. (supervised by Dr. Steve Sillett) in redwood physiology in 2008. After finishing her PhD in forest ecophysiology in 2013 at Northern Arizona University, she spent three years in our Department as a well-regarded lecturer. (Indeed, she received the student-voted Teacher of the Year award in 2014-15). Presently, she teaches Dendrology and Silvics.

Her research interests include forest water use, drought stress, responses to management, and canopy ecology, and she investigates these topics using stable isotope, dendrochronological, and physiological analyses. While her doctoral work was on ponderosa pine forests, she is particularly passionate about studying the coniferous forests of the Pacific Northwest. Her current research projects here include physiological investigations of redwood and Douglas-fir seedlings, old-growth Sitka spruce trees, and conifer encroached oak woodlands. She has also recently started monitoring tree vole activity in old-growth and second-growth forests. Her research is presently funded by McIntire-Stennis, Save the Redwoods League, CAL FIRE, and the L.W. Schatz Demonstration Tree Farm.

Some of Lucy’s highest impact work comes from her doctoral research funded by the U.S. Department of Energy. In this work she showed that ponderosa pines in the U.S. Southwest rely almost exclusively on winter-derived precipitation for growth and do not directly use monsoon rains as commonly assumed; the pines do however benefit from the increased humidity associated with monsoon rains (Kerhoulas et al. 2013 Forest Ecology and Management,
Kerhoulas et al. 2017 *Forests*). In this work she also found that restoration thinning treatments stimulate a greater increase in growth rate and drought resistance in large trees compared to small trees ten years after treatment (Kerhoulas et al. 2013 *Journal of Applied Ecology*).

Although she has lived in many places (including an isolated cabin in Alaska for three years), she is thrilled to be back in Humboldt County and looks forward to many decades of teaching and working with our great students. When not teaching or researching, she enjoys time with her husband, Nick, and two daughters, Penn and Camille, backpacking, and practicing yoga.

![Image](image.png)

**Dr. Harold Zald.** Over the past 20 years Dr. Harold Zald grew up exploring the lakes, streams, and maple-beech forests of Michigan, but caught the west coast bug back in 1995 during an internship with the Bureau of Land Management in southwestern Oregon. Subsequently hooked on fire ecology and mountaineering as a botanist and firefighter with the U.S. Forest Service in the Washington Cascades, he moved to Corvallis in 2002, where he worked as a research ecologist for the U.S. Forest Service. He received his Ph.D. from Oregon State in 2010.

Using field measurements, tree-rings, and remotely sensed imagery, his overarching research objective is to evolve new forest inventory and monitoring methods, assist forest management decision-making, and inform broader forest policy. Currently, he is using tree ring data to determine if forest thinning and prescribed burning in the Sierra Nevada improve resistance to water stress during the 2011-2016 California drought. Dr. Zald is also developing new methods integrating tree-ring data and multi-temporal satellite imagery to quantify and map changes in forest productivity in the Klamath Ecoregion over the past 30 years.

At HSU he is teaching our forest measurements class as well as advanced remote sensing. “I am excited to teach field-based and experiential classes in forestry at Humboldt State, helping students develop quantitative and critical thinking skills applicable to careers in forestry, ecology, and natural resource management,” says Dr. Zald.

When not teaching or doing research he and his wife Erin like hiking, backpacking, biking, fishing, kayaking, wood working, gardening, bee keeping, fermentation sciences, and
Students:

Logging Sports:

Led by Justin Kostick from Green Diamond, our Logging Sports Team had a successful year. The season began with a trip to Oregon State for the Fall Frost Competition, which the eight teams regard as a “pre-season” where they can see how the new members perform in a competition. After a great showing in perpetual rain, our team pronounced itself to be ready.

At the Sierra Cascade Logging Conference in Anderson CA, the Humboldt team took first place. Next, they traveled to Flagstaff AZ for the 78th Annual Association of Western Forestry Clubs conclave. Up against ten teams drawn from all over the west, the HSU club did not win, but the students nonetheless had a great time both in the competition and in the socializing. As Conrad Stielau put it: “Forestry students from different universities immediately have a lot in common; it does not take long to develop friendships.”

The season ended with HSU hosting Berkeley at the Redwood Regional Logging Conference in Eureka. Putting on a show at the Redwood Acres fairground, HSU won.

Caption: Conrad Stielau and Evelyn Murphy.
Winners of the HSU Forestry Alumni Award
This year’s winners of the Alumni scholarship were Alexander Gorman, Dana Dysthe, Frederique Guezille, and Brian Simpson.

Caption: Alumni award winners with the presenter, Dr. Dan Opalach.

**Graduate Students:**
- Bret McNamara won the award for best student poster at the Third Southwest Fire Ecology Conference in Tucson, AZ for his research entitled “Post-fire seedling establishment patterns of *Hesperocyparis bakeri*”. Bret is a graduate student working in Dr. Jeff Kane’s Wildland Fire Lab.

**FOCUS ON RESEARCH: Dr. Han-Sup Han.**
Dr. Han-Sup Han, one of the premier researchers in forest operations in the United States, came to HSU a decade ago. Raised in South Korea, he received his BS and MS in forestry from Kangwon National University. He then took a second MS, this one from the University of Maine in forest operations, and then a PhD from Oregon State.

Of his 42 peer-reviewed publications, almost all are focused on practical issues in forest operations where he strives to develop a more efficient way to execute forest management practices while minimizing environmental impacts.

His most recent project involves the disposal of forest residues such as logging slash and small-diameter trees. As cut blocks have become smaller, broadcast burning has been replaced in California by the firing of large piles of forest residues. However, this more intense burning leads to a correspondingly narrower permissible window for the fire; the upshot is that there is a growing backlog of fuel accumulation. Dr. Han was hardly the first to point out that slash might be used as a biofuel. But he understood that the primary impediment to its widespread use was the high cost of transporting a low bulk density product to a mill; it simply was not profitable to haul the forest residues more than a few miles. His key insight was that slash
needed to be reduced to a denser, energy-rich product on-site, so that the trucks would haul a much higher density material and thus greatly reduce the cost of transportation as mass per mile. In a $5.8 million collaborative effort with the U.S. Department of Energy and 15 regional partners, Dr. Han has led a team of researchers to develop new equipment, operations, and techniques to transform forest residues into a valuable energy source. “It is ironic,” says Dr. Han, “that I study this now. When I was a boy one of my chores was to collect firewood for my family. It was all that time spent in the nearby forest collecting fine woody debris that got me interested in a career in forestry. And here I am many decades later still talking about how to use these smaller pieces.”

Caption: Dr. Han leading a field demonstration of a biomass chipping operation.

**FOCUS ON EDUCATION: drones.**

Dr. Harold Zald is excited to develop new research programs and classes that will utilize Unmanned Aerial Vehicles (UAVs) in forestry and forest ecology. UAV technology (i.e. aircraft, sensors, and data processing) have greatly advanced in the past decade, with a proliferation of UAVs in use by the general public, private industry, nonprofits, and government agencies. Regulatory hurdles such as pilot licensing and airframe certification by the Federal Aviation Administration (FAA), and University uncertainty about the UAV regulatory environment, have until now inhibited UAV research and education in the natural resources sector. However, recent changes to FAA regulation and Humboldt State University policy have dramatically lowered the regulatory bar to conduct research and train students in UAV applications in forestry.

Dr. Zald is currently working with collaborators from the University of New Mexico to quantify forest vegetation structure and biomass using UAV imagery, and using multi-temporal UAV imagery to quantify changes in forest structure and fuels after prescribed burning in mixed-conifer forests in the Sierra Nevada. Imagery collected from this research will be used in Dr. Zald’s Advanced Remote Sensing class, where students will learn about the relative strengths and limitations of different types of remotely sensed data (i.e. satellite imagery, lidar, and UAV imagery) for forestry applications. Students will learn how to process UAV imagery to develop very high resolution orthomosaic images, develop three-dimensional vegetation models using Structure from Motion (SfM) techniques, and use processed UAV imagery to quantify forest biomass and structural complexity.

As with advances in lidar technology over a decade ago, remotely sensed imagery from UAVs will not replace traditional field inventory and monitoring of forest resources, says Dr. Zald.
Instead, he sees UAV technology as yet another tool in the forester’s toolbox, one that students will need to be competitive in the forestry and natural resources job market of the future. UAVs provide targeted remote sensing data that is often not available at the spatial and temporal resolution needed for specific resource and research objectives. In particular, he envisions remotely sensed data from UAVs providing a new perspective to forestry and ecological research, while greatly improving forest inventory methods especially for smaller non-industrial forestlands.

**Focus on Alumni:**

- At the annual HSU Honors 2017 Distinguished Alumni banquet, two of the three honorees were graduates of our department: Ken Pimlott (’88, Forest Resource Management), and Michael T. Rains (’68, Forestry Management, ’71 Watershed Management).

  - **Michael T. Rains, Forest Service Deputy Chief (ret.)**
    After receiving his award, Michael gave a talk titled “The Art of Influence: Characteristics of effective leadership in the 21st century and how great leaders adjust their styles based on the situation,” based largely on his experience with the Forest Service.

    A widely respected leader in linking environmental health with community stability, Michael Rains led a career that spanned nearly half a century with the Forest Service, rising through the ranks from Wildland fire fighter to become a deputy chief.

    Leadership and a determination to advance land management were hallmarks of Michael’s work, along with a passion for improving the lives of people in both rural and urban areas. He retired from the Forest Service in 2016 after several accomplishments, including serving as the agency’s lead on developing the National Fire Plan, and working closely on the Living Memorial Project dedicated to the events of Sept. 11, 2001.

    He’s also a 2012 recipient of the Presidential Rank Award, which honors high-performing federal employees for extraordinary accomplishment. He remains a registered professional forester in California.

    In the best tradition of our Department, even in retirement he continues to serve. He earned a teaching credential and now teaches math and science to middle school students in Pennsylvania, a role he considers as gratifying as anything he has done in his remarkably accomplished career.

  - **Ken Pimlott, CAL Fire Director**
    Ken’s talk, “The Challenge of Effecting Real Change: The role changing climate, drought, extreme wildfires, and population growth play in managing risks to California’s forested landscapes”, reviewed the challenges posed by fire and drought during the last five years. In the face of historic droughts and a dramatic increase in the occurrence of massive wildfires, Ken has been able to leverage cooperation and integration among federal, state, and local firefighters. In 2016, he was recognized with the California State Association of Counties Distinguished Service Award.

    Ken Pimlott is currently the director of the California Department of Forestry and Fire Protection, the highlight of a career that began 33 years ago as a reserve firefighter in Contra Costa County, California. Throughout his career Ken he gained broad
experience in all areas of fire management, including command and control, cooperative fire protection programs, training, and safety.

He has championed the sustainable use of the state’s natural resources, and promoted local fire prevention efforts through fuels management, land recovery, and reforestation.

Focus on an Alumnus: Scott Warner, class of 1970.
Wanting to be a Forester since age 12 (the obvious Natural Resource career gateway at the time), I chose Humboldt State College because aspiring foresters went to the woods every day - no summer camp. I also wanted to be a Smokejumper (as were many of my HSC Forestry classmates) for the adventure and to pay for college. The hands-on Humboldt State Forestry curriculum of my era was imbued with signature practicality taught by an enthusiastic faculty with broad based real-world experience. My classmates and I were thoroughly prepared to take on almost any forestry task directly upon graduating.

I spent many years as an industrial forester, first in Oregon and then in Interior Northern California (California Registered Professional Forester 1955), involved in all aspects of the forestry profession. Subsequently, I worked from 1994 to 1998 in Uruguay in South America as GM of a high tech/high yield Eucalyptus plantation project: a Royal Dutch Shell/UPM Kymenene (Finland) joint venture. After returning home to the USA, I continued working in international forestry, forest products, and business on both a client and salary basis. Ultimately, Forestry took me to 40 countries-- from the woods to being an executive-- before retiring in my mid-50s to have a “different kind of fun.” If not for Forestry, I would not have met my dear wife in Costa Rica while on assignment in her country.

I came to know, work with, and mentor foresters from Forestry schools all over the world. The best foresters could “Do It All” from the woods, to the office, to the boardroom, and to academia. My list of the best schools, based largely on the quality of the foresters I met, is short: The ETH Switzerland, Gottingen University Germany, The Finnish Forestry Schools, UBC Canada, NE Forestry University Harbin China, Talca University Chile, seven very good others in the USA, and Humboldt State. Many from other Forestry institutions, most often the highly esteemed ones, would observe in amazement, “You have actually ‘Done It’, and ‘Can Sort It Out!’” I attribute these abilities to a large degree to my education.

Thank You, Humboldt State Forestry (and the Smokejumpers)!

Caption: Scott Warner with Fragrant Fir (Cunninghamia lanceolata) Forest Farm Workers. Jiang Yong County, Hunan Province, China Sept. 2003
More Losses.

*Ed Crans*, RPF #1805, lost his battle with cancer last Sunday, August 6th. Ed was a 1973 graduate of the HSU Forestry Program. Ed was a longtime member of CLFA, since 1995 and attended meetings and workshops well into his retirement. The CLFA community was very important to him professionally and personally. Ed spent his entire career working in CA forests, first at Beatty & Associates 1973-2000, PALCO 2000-2005, and CAL FIRE out of Auburn 2005-2014.

![Caption: Ed and his five children](image)

*Brian Wing* passed away at the age of 39 on August 16, 2017 following an accident on his ranch in Redmond Oregon. Brian grew up in the Sacramento area of California, received his Bachelor’s degree in Forestry from Humboldt State University (2005), and went on to attain a PhD in Forest Engineering from Oregon State University (2012) working with Dr. Kevin Boston, now a faculty member at Humboldt State University. He worked for the U.S. Forest Service as a Research Forestry Technician from 2002-2011 and as a Postdoctoral Research Forester from 2012-2017 with the Pacific Southwest Research Station. Brian’s research focused on incorporating geospatial LIDAR applications for forest planning, monitoring, and various resource assessments. He was a very enthusiastic and engaged student at HSU where he was active in Forestry Club, Xi Sigma Pi, and was a member of the 2004 Society of American Foresters National Quiz Bowl Championship team. Brian was always ready to help out other students and was very well liked and respected by fellow students, staff, and faculty in the department. His kindness was known to so many and his sense of humor was contagious. Brian was active in the Forestry Alumni Chapter following his time at HSU, where he served on
the Steering Committee and HSU Forestry Alumni Recruitment Program from 2005-2007. Brian married Valerie Godfrey from Bakersfield, CA in 2006 and their daughter Autumn was born in 2014. Brian loved working on projects and improvements around the ranch, listening to Giants games, and watching sunsets from the pond. He will be sorely missed.

Caption: Brian Wing

**The Pathfinders scholarship**
Our newest scholarship is due to the generosity of our first alumnus, Bob Archibald, class of 1959, and several of his classmates. Here is the story:

I enrolled in the two-year forestry-lumbering program in the fall of 1954, fresh outta high school. I believe that all of the 15 original grads came out of that setting. Several enrollees departed after getting their two-year certificate, but at that time we were offered the opportunity to remain and enter into the four-year BS program.

Without my college degree, I would not be where I am today. That degree allowed me to pursue two careers: I was able to enter the U.S. Navy Officer Candidate School (in lieu of the draft) and then after my discharge from active duty, obtain a forester position with the Bureau of Land Management. I spent 24 years in the Naval Reserves and 33 years concurrently with the BLM. So, for many years I contributed to the Forestry Alumni Association as a way of giving back. In my later involvement with the Military Officer Assn., we were awarding scholarships annually to JROTC high school seniors, and I began thinking of a scholarship at HSU for Forestry students.

Since I was in a unique position of being a member (first alphabetically) of the first forestry graduating class, I felt that it was an opportunity to commemorate the first class. In 2013, I contacted Philanthropy at HSU, on how to set up a scholarship. I was put in touch with Mary Wells. I explained my interest in setting up an annual $2,000 award to a forestry student. She directed me to the Chair at the time, Ken Fulgham, to help set up the criteria for the award, and then I made my five-year pledge. I reached out to the remaining members of the first graduating class to advise them of its establishment and say they could contribute if they
wished. And also included for them a copy of the proposed certificate of award. Originally, we received over $16,000 in pledges and cash contributions. Several expressed their appreciation to be included once they saw the certificate. The first award was given in April, 2014 during the 100th anniversary celebration of the University.

I am hoping for a minimum of a ten-year life for the scholarship, based on the respective ages of our contributors. Perhaps someday it can be made into a permanent endowment fund if we could receive enough contributions (at least another $25,000).

The Teacher of the Year Award
Bookending that story from the class of 1959, we have a much more recent grad, Brett Watson (class of 2010), talking about the origin of the Teacher of the Year award:

The winners of the existing awards were decided by faculty so I thought it would be a powerful and important gesture to give the students a way to acknowledge the people who were having the greatest impact on their educational experience. I suggested the idea to my mentor and adviser at the time, Dr. Morgan Varner, and he encouraged me to pursue the idea with the department chair, Ken Fulgham. I was then granted permission to create the award. George Pease made the plaque and I oversaw the voting for that first award. The first winner was Dr. Morgan Varner in 2010.

Sungnome Madrone (class of 1975)
Mr. Madrone, who has been teaching in the Department for a decade, was awarded the Restorationist of the Year from the Salmonid Restoration Federation in 2016. This statewide organization recognizes his 40+ years of work in watershed restoration and for being a pioneer in these efforts. In completing over 400 projects, trails have been built, roads decommissioned and stabilized, and fish habitat restored. These projects have been completed on small parcels as well as large forest industry lands, all in the cooperative manner that marks the trend for today’s forest management.
Sungnome: “HSU Forestry continues to evolve with the times and as Jerry Partain said near the end of his book we have now moved from an old growth logging regime to managing younger forests. With that change, we have also come to recognize that forests are a complex fabric that should be managed for the multiple benefits they provide. While we still strive to produce forest products at the least cost, we also work to protect the water quality and quantity, fish and wildlife habitat, soils and range, storage of carbon, and fire ecology. It is a complex world and here at HSU we are working to adapt to these changing conditions and changing societal values.”

Somehow still having extra time on his hands, Mr. Madrone will be running for 5th District Supervisor this autumn. A public announcement will occur in October.

Awards and Winners at the 2016/17 Banquet

Dillard Bailey – Graduate. Sara Matthews and Bret McNamara. $1000 each.
Celina Montes $500.
Helen Barnum. Jared Peterson and Joshua Rivera. $1000 each.
Robert Cary. Arianna McGlynn ($1000), and $500 each for Collen Smith, Luis Melendez, Michael Peres, Taylor McKeand, Brian Dunham, and Justina Madrigal.
Ed & Joan Pierson. Gabriel Goff $1000; Jocelin Dorado $500.
Jerry Partain Hanah Rolf and Kristy DeYoung. $1500 each.
HSU Forestry Alumni. Alexander Gorman, Dana Dysthe, and Frederique Guezille $1000 each; Brian Simpson. $500.
Louis H Wayers. Cameron Stoflet. Diana Upequi, Amanda Donaldson, Christopher Collins, Scott Ellsworth, and Tania Andrade ($1000 each), and $500 each for Kyle Mann, Victoria Roel, and Shane Sauers.
Honeywell. Brenda Gunn, Diana Upequi, and three students (TBD). $3500 each.
Gayleen Smith. Sonnette Russell ($1500), Suzan Homsombath ($1000), and Travis Munoz ($500).
Ron Hoover-HAF. Taylor McKeand. $500.
Schober-FOR-HAF. Scott Felder ($500); Michael Padilla and Conrad Stielau ($1000 each).
James T. Brown. Scott Felder ($860); Kirk Baldwin, Conrad Stielau, and Griffin Olar ($500 each).
RRLC. Griffin Olar and Colleen Smith ($2500 each); Alexander Gorman ($1500); Conrad Stielau and Scott Felder ($1000 each).
Women In Timber. Colleen Smith. $1000.

Non-cash awards:
Academic Excellence. Brent Harvey.
Outstanding student in RRS. Mariah Aguilar and Kaelie Pena.
Professional Promise Award. Andrew Meuller.

Listing of Faculty Awards, publications, grants, and presentations for 16/17:

AWARDS:
Berrill, J-P. Department of Forestry & Wildland Resources “Outstanding Faculty of the Year 2017”, as voted by students.

Kane, J. 2017 Presidential Scholar award (HSU).
Kelly, E.C. California Forestry Association "Educator of the Year" 2017
Kerhoulas, L.P. Emeritus and Retired Faculty Association Award.
McNamara, B. Outstanding Student Poster Award Third Southwest Fire Ecology Conference, Tucson, Arizona. November 28-December 2nd, 2016. (Supervisor: Jeff Kane).
Madrone, S. Restorationist of the Year from the Salmonid Restoration Federation.

PUBLICATIONS


REPORTS AND CHAPTERS


**PRESENTATIONS**

**Berrill, J-P.** 2016. Redwood forest management and restoration. Teacher Training Workshop in Arcata, CA, May 4th 7-8pm, HSU Natural History Museum.


Sillett, S.C. 2017. Recent insights from old-growth *Sequoia sempervirens* forests. HSU Natural History Museum, Arcata CA.


GRANTS

**Berrill, J-P.** Coast Range Dry Forest Restoration / Multiaged Conversion Silviculture: Response to Partial Harvesting and Chemical Thinning of Hardwood. California Air Resources Board and Dept. Forestry & Fire Protection. $354,150.


**Greene, D.F.** Weather cues and the magnitude of conifer seed crops. McIntire-Stennis. $18,000.

Han, H.-S. Biomass Gasification Resources: Tools, techniques, and strategies for evaluating environmental and economic impacts of community scale biomass power. California Energy Commission. (Han co-PI, $25,000)

Kane, J. Effectiveness of variable density thinning and prescribed fire for promoting resistance to drought-induce bark beetle-caused tree mortality. USDA Forest Service Pacific Southwest Research Station, Joint Venture Agreement, $70,500.


Kane, J. Long-term fire behavior and effects modeling in masticated fuelbeds. USDA Forest Service Pacific Southwest Research Station, Joint Venture Agreement (2016), $13,495,

Kane, J. Increasing forest resistance to drought using prescribed fire. USDOI National Park Service, California Cooperative Ecosystems Studies Unit. $15,000. PI: J. Kane.


Kelly, E.C. Utilizing unmanned aircraft systems for ecological monitoring in transboundary contexts. Research, scholarship, and creative activities program. $5,000.


Kerhoulas, L.P. Conifer crown water sources. McIntire-Stennis. PI; $54,000.

Kerhoulas, L.P. Schatz Tree Farm small mammal inventory: the Sonoma tree vole, a California species of special concern. L.W. Schatz Demonstration Tree Farm. $5,818.


Sillett, S.C. John Montague for re-measurement of tall tree heights in 2017. $15,573

Stubblefield, A.P. Evaluating oak woodland restoration in northern California. McIntire-Stennis. $179,974

Zald, H.S.J. Integrating multi-temporal satellite imagery and tree-rings to quantify responses of forest productivity to climate change and drought stress in Northern California. PI: Harold Zald, $54,000. McIntire-Stennis.


Zald, H.S.J. Changes in forest vegetation and fuel conditions 15 years after prescribed fire. PI: Harold Zald, $125,973. USDA Forest Service Research Joint Venture Agreement.

Zald, H.S.J. University of New Mexico, Quantifying the carbon costs and benefits of maintaining fuel treatment effectiveness, PI: Harold Zald, Co-PI: Lucy Kerhoulas, $111,067