

Licensing News

Office of Professional Foresters Registration



Teddy Roosevelt and John Muir photographed together in Yosemite 1903.

**SUMMER 2020
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CURRENT PROFESSIONAL FORESTERS EXAMINING COMMITTEE COMPOSITION

Professional Foresters Registration shall protect the public interest through the regulation of those individuals who are licensed to practice the profession of forestry, and whose activities have an impact upon the ecology of forested landscapes and the quality of the forest environment, within the State of California.

Mr. Otto van Emmerik, Chair – RPF (Industry, Retired)
Mr. Dan Sendek – RPF (Public, Retired)
Mr. William Snyder – RPF (Cal Fire, Retired)
Mr. Gerald Jensen – RPF (USFS, Retired)
Mr. Jason Poburko – RPF (Cal Fire)
Mr. Larry Forero – CRM (Certified Specialty)
Mr. James Hawkins - RPF (Industry)
Mr. Frank Mulhair – RPF (Industry)
Mr. Christian Eggleton – RPF (Consultant)
VACANT – (Public Member)

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CURRENT BOARD OF FORESTRY & FIRE PROTECTION COMPOSITION

The Board's mission is to lead California in developing policies and programs that serve the public interest in environmentally, economically, and socially sustainable management of forest and rangelands, and a fire protection system that protects and serves the people of the state.

Dr. J. Keith Gilliss, Chair (Public Representative)
Ms. Darcy Wheelles (Public Representative)
Mr. Richard Wade (Timber Industry Representative)
Ms. Susan Husari (Public Representative)
Mr. Marc Los Huertos (Public Representative)
Mr. Mike Jani (Timber Industry Representative)
Ms. Katie Delbar (Range/Livestock Representative)
Mr. Christopher Chase (Timber Industry Representative)

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The View from the ~~15th Floor~~ Dining Room Table

by Dan Stapleton, Asst. Executive Officer

This spring, my view changed from the 15th floor to that of my dining room table as Board staff have been instructed to self-isolate and work from home as part of the mitigation measures to reduce the spread of the COVID 19 virus. In any normal year I consider working from home a blessing, but there are drawbacks. There are no high-volume copiers and speedy LAN connections working at home. There is no socializing with coworkers or going out for lunch. Even the daily round trip commute through rush hour traffic seems more desirable to me after eleven weeks of staying at home. Most of you are likely continuing your work in the field unaffected by stay at home orders and supported by essential worker status. I envy your freedom to be outdoors during these challenging times.

The Board has adapted well to the stay at home orders, successfully conducting Board proceedings via webinar. The public has remained engaged with Board matters using the GoToWebinar platform with only a few minor technical problems or an occasional loss of connection. The meetings so far have covered topics such as the upcoming fire

season, county rules pertaining to fire protection, stocking standard revisions, and equipment limitations in WLPZs and on steep slopes.

The PFEC will need to adjust as well by using the webinar platform. The first PFEC meeting since February is now scheduled for June 22nd. The April RPF CRM exam was canceled when it became apparent that the lifting of COVID 19 restrictions were going to proceed slowly and cautiously forward. The April exam has now become the October exam and we expect that all 47 applicants of the April exam will be joined by 15 to 25 new applicants in October, making this the highest attended examination in quite some time. To handle such a large exam participation number while providing for social distancing, we are adding an additional exam location in Redding at the USFS Northern California Training Center and near Sacramento, at the Shingle Springs Community Center replacing the Sierra College location which will not be available in the fall. Our Eureka location will remain at the Humboldt County Agriculture Building. I wish there were more to report, but the important message here is to stay safe.

Snapshot in History



Association of State Foresters Meeting, circa 1955. State Forester and RPF #1 Francis H. Raymond located third row back and third in from left.

REGISTERED PROFESSIONAL FORESTERS & CERTIFIED RANGELAND MANAGERS

The table below indicates the known status of all current and former registrants by license type as of June 9, 2020.

STATUS	RPF's	CRM's
Valid	1,152	88
Withdrawn	163	8
Revoked (non-payment or disciplinary action)	759	11
Voluntarily Relinquished	705	11
Suspended	0	0
Deceased	327	6
TOTAL	3,106	124

RECENTLY APPROVED REGULATIONS

In 2020, the Board approved the following:

- [Licensing Fee Amendments, 2019](#) - Approved new fees for RPFs and CRM renewals approximating an 84% fee increase for RPFs and CRM. The Board also approved a 30-year registrant fee that was discounted by \$100 from the regular renewal fee to incentivize retention of long tenured RPFs only. The fees for reinstatement from withdrawal and duplicate license fees were also increased to their statutory maximums.
- [Subdivision Map Findings 2019](#)
- [SRA Fire Safe Regulations 2019](#)
- [SRA Fire Safe Regulations 2020 Approved](#)
- [Non-substantive Emergency Notice Amendments, 2019](#)
- [Emergency Fuel Hazard Reduction Amendments, 2019](#) - Clarified and simplified the existing Emergency Notice for Hazard Fuel Reduction regulations to encourage greater use of the specific Emergency Notice process and to improve the effectiveness of hazardous fuel removals by landowners in strategic areas. The Board is currently engaged in the process of permanent rulemaking on this topic and will likely have updated permanent regulations effective January 1, 2021.
- [NTMP Amendments, 2019](#) - This action included amendments to NTMP regulations to comply with recent legislative changes made in S.B. 901 (Stats. 2018, ch. 626), as well as amendments intended to make certain mapping standards consistent between NTMPs and WFMPs.
- [Southern subdistrict rules](#) - The rulemaking action amended the Forest Practice Rules by updating point count standards and deleting provisions regarding even-aged silvicultural management of Eucalyptus trees within the southern subdistrict of the coast forest district. This action also updates stocking

standards for Marin County. These rules go into effect Jan 1, 2021.

- **RPF & CS Amendments, 2020** - The rulemaking amended the regulations to add the term, "certified specialists," which conforms to existing statutory language and reiterated that certain existing regulations adopted pursuant to the Professional Foresters Law apply to both registered professional foresters and certified specialists. The amendments also add requirements for specialty certification. These regulations became effective April 1, 2020.

A list with all links to 2020 proposed and approved regulation is located [here](#).

STAFF ADDITIONS

Deniele Cade, Staff Services Analyst - The Office of Professional Foresters Registration is excited to announce the addition of Deniele Cade to help our registrants



with licensing renewals, exam applications, withdrawals and general information. Deniele Cade (pronounced Deneel) comes to us by way of Covered California where she worked in customer service. Deniele has a Bachelors of Science degree in Nutrition and Food and has worked in the health and fitness industry as a personal trainer and a manager of a vitamin supplement store.

Robert Roth, Attorney III - Bob Roth joined the Board staff in March 2020 working under the supervision of Executive Officer Matt Dias, as well as Senior Board Counsel Jeff



Slaton acting in a lead capacity. Bob is a California native who was born and raised in southern California. Bob moved to northern California to attend UC Davis, where he received a degree in Political Science. He worked for the Legislature for 8 years before pursuing a law degree from McGeorge Law School. Bob's legal studies focused primarily on environmental and natural resources areas of law, including a one-year externship with the Attorney General's Public

Rights Division. For the last 11 years, Bob practiced law at the Office of Legislative Counsel, which specializes in drafting and amending legislation for the Legislature. During that time, Bob developed a substantial background in laws that impact state and local government entities, such as the Board. Bob is excited about this new opportunity with the Board and looks forward to the challenge of developing legal expertise particular to matters of forestry and fire protection.

REGULATION FILES

Regulation files are now available at the Board website [here](#). If you require archived material, please email [Eric Hedge](#), Regulations Program Manager.

RPF and CRM Examination Announcements

Due to the mitigations associated with COVID 19, the April 2020 examination was

canceled. The October 2020 Examination has been scheduled for October 2nd, 2020 and the deadline for NEW applications for that exam is August 7th, 2020. The October [examination notice](#) has been revised and reposted to reflect new exam locations in Shingle Springs and Redding and can be located online on the Professional Forester Registration webpage.

Those interested in taking the RPF or CRM examinations are encouraged to contact Dan Stapleton with any questions about qualifications prior to applying and exam fee. Dan may be reached at 916-653-6634 or by email at dan.stapleton@bof.ca.gov.

In Memoriam

This section is devoted to the memory of those fine foresters who have passed from our ranks. Regrettably, I am sometimes late in getting this information posted. So that I may provide timely remembrances, if you have knowledge of an RPF or CRM passing, please forward this information to my Board email address at dan.stapleton@bof.ca.gov so that I can pay tribute to these individuals at the next Board of Forestry meeting and in the next edition of Licensing News.

Dean Solinsky, RPF #615



Dean Solinsky passed away on May 10, 2020 in Eureka, California. Dean was born in Berkeley on September 21, 1921 and graduated from Berkeley High School in 1939. Dean was a World War II veteran, even though initially disqualified due to being born with a club foot, he served in Saipan as ground support for the Army Air Corp. Following the war, Dean continued his study of Forestry at the University of California Berkeley, and immediately upon graduation in 1948, his brother and him formed the consulting forestry firm of "Frank and Dean Solinsky" based in San Francisco. Frank and Dean Solinsky worked throughout the United States, as well in Canada, Mexico, Central America and South America. Dean comes from a pioneer family and is a fourth generation Californian.

Robert Guthrie Lindsay, RPF #1202



Bob Guthrie passed away in February 2019. He grew up in Connecticut and loved the outdoors. He graduated from the University of Connecticut in 1960 with a B.S. degree in Forestry. He volunteered for the draft; serving two years active duty, one of which was in

South Korea. He moved to Quinault, Washington; starting his career in forestry as a private logger and then as a USDA Forester on the Olympic National Forest. Bob then promoted to a Planning Forester position on the Willamette National Forest stationed in McKenzie Bridge, Oregon and later promoted to Wilderness Specialist responsible for the John Muir Wilderness on the Sierra National Forest, California. In 1977 Bob was promoted to District Ranger of the Ukonom Ranger District in Somes Bar, California. During these years, he became part of the California Incident Management Team responding to large-scale wildfires. He also served on the Federal Emergency Response Team responding to the 1987 Valdez Oil Spill, the 1997 Hurricane Iniki, and the 1994 Northridge Earthquake. Bob retired from the Forest Service in 1998 and started working at a local ranch. It brought Bob great joy working cattle, restoring old structures and doing whatever else he was asked to do. Bob's greatest delight was his family: His wife Altha; son William with wife Kelli and children Brooke, Kahla and Jessica; son Doug with wife Rhonda; and son Donald with wife Cindy and children Nicholas and Clara.

Lance Purdy, RPF #2806



Lance Purdy loved his family, the outdoors, and his Lord and Savior, Jesus Christ. Lance spent most of his career working in private timber industry. He enjoyed music, working on house projects, and sharing his love for hiking and sailing with others. Lance grew up in Manteca and earned degrees from Humboldt State University and his MBA from Cal Poly. He and his wife, Patricia, were married for 25 years and they have 2 children, Sean (20) and Morgan (17). He has lived in Pine Grove for 17 years and was a member of the Sutter Creek Church of the Nazarene. A great day for Lance would consist of hiking a trail or skiing a mountain with Patricia and Morgan, racing a sailboat on the SF Bay, or speeding around a track in his red mustang. A great evening for Lance would be lying on the couch, cat on his chest, watching Game of Thrones. Lance was greatly loved and his passionate view of the world will always be remembered.

Nelson Money, RPF #1792 – Nelsen Money, RPF 1792, died Saturday May 24, 2020. Nelsen was a proud Humboldt State alum, a lands forester and utility vegetation manager with PG&E for over 30 years. He retired from PG&E in 2009 and opened his own utility vegetation management (UVM) consulting firm, NRM (his initials) Utility Vegetation Management, LLC. Nelsen consulted with UVM professionals and utilities throughout North America. In addition to being a professional forester, Nelsen also was a pest control advisor and certified arborist. Nelsen was recognized world-wide as an innovative leader in UVM where he served in multiple leadership roles within PG&E, the Utility Arborist Association (UAA) and International Society of Arboriculture (ISA). Niel Fisher, Western Resource Manager for The Collins Companies remembers Nelsen as “a mentor and friend to many at

PG&E and beyond – and with his cajoling humor, he pushed many of us to think critically, work collaboratively and solve problems. I know that I'll miss Nelsen."

SKOOKUM FORESTER

LEN LINDSTRAND

In keeping with Gov. Newsome's stay at home Executive Order, this edition of the Skookum Forester was developed from a virtual interview with Lennart Lindstrand, Jr., RPF 624. Len retired in 2010 after a 43-year career with W.M. Beaty & Associates, Inc.



and its predecessor, Shasta Forests Co.

Although retired, Len remains active in forestry related matters as an RPF Examination Grader, a member of the California Department of Tax and Fee Administration Timber Tax Advisory Committee as well as a volunteer for various forestry related educational programs.

Additionally, to fill the spare time, he and his wife Sandy own and operate a small Christmas tree and timber Tree Farm located near

Shingletown in Shasta County.

1.) Len, what is your background? Where did you grow-up?

I was born in 1942 in Salinas, CA., the oldest of four children, and grew-up on a family farm in the Mission District, a farming community located about 2 miles southwest of Soledad in the Salinas Valley. The Mission District got its name from the Spanish Mission Nuestra Senora de la Soledad which is located in this area. It was founded in 1791 as the 13th Mission in the chain of Spanish Missions that stretched from San Diego to Sonoma. The Salinas Valley was a good place to grow-up, small friendly towns, fertile agricultural soils, with scenic Santa Lucia Mountains to the west and the Gabilan Range to the east. One draw-back, the weather. Even in the summer, one always wants to have a jacket or sweater close at hand. Nearly every day, a north wind would blow and bring with it fog from Monterey Bay. The fog would persist until mid-morning, then burn off giving a few hours of sunshine and pleasant temperatures only to start the cycle over again.

Our family had one outlet from the cold and fog of the valley and that was a one or two week summer vacation at my Uncle's cabin in the Sierras near Dutch Flat. It was a pleasant change of pace, hiking, sight-seeing, watching the trains go by, fishing and swimming at the Community pool. A seed for a life in the woods was planted.

Education: I attended elementary school at Mission Union School which was a small school with mixed grade class rooms. The 6th, 7th, and 8th grade teacher was also the Principal. The custodian was also the bus driver. There were eight students in my 8th grade graduating class. From there, I went to Palma High School, a Catholic High School, in Salinas. It was a small school with maybe 400 in the student body but a step up in size for me. There were 89 in my class which was Palma's 6th graduating class. Being a relatively new high school, the administration's goal was to establish a reputation as a college prep institution so there was a heavy emphasis on discipline and academics. As such, a lot was expected from the students.

After high school, I attended Hartnell Junior College and in doing so, was able to live at home saving a boat load of money. Additionally, I was able to take care of most of the general education requirements to move into a four year program. From Hartnell, I transferred to Humboldt State College in the fall of 1963 to major in Forest Management (the only forestry option offered at that time). Just as in high school, I found myself enrolled in a program seeking to be recognized (the first Humboldt forestry graduating class was in 1959) and in the process of building a case for SAF accreditation. It would not be until 1979 before Humboldt received accreditation. (The accreditation of the forestry program at Humboldt is a story in its self. See "Forestry at Humboldt – According to Partain" for the full story.)

Summer Jobs: While growing-up, about the only work available was on the local farms and could be best described as entry-level. I started out hand pulling night shade weeds in bean fields. Night shade was a serious pest and a prolific seed producer and for that reason the weeds could not be simply pulled and left to dry, but had to be packed out of the field. Pay – \$0.89/hr. Once I was old enough to drive, I got a job on a large ranch moving irrigation pipe. This was 10 hrs./day, six days a week. Pay - \$1.00/hr. It was somewhere between weeding and moving irrigation pipe that I figured out that it would be a good idea to get an education.

Once I got into Hartnell, I was lucky enough to get a job with the California Division of Forestry as a firefighter on the District 5 Range Improvement Crew headquartered at the Santa Margarita FC Station in the San Luis Obispo Ranger Unit. The primary task of the RI Crew was to stand-by on range improvement control burns conducted by ranchers cooperating in a Range Improvement Association. This was great experience as one could learn a lot about fire behavior by being able to stand back and watch a burn in progress. When not on a burn project, the RI crew was part of the Ranger Unit's roster of available engine crews.

While at Humboldt, I worked one summer on a research project that the HSC Forestry Department contracted with the Pacific Southwest Forest and Range Experiment Station. When the job was posted, I had visions a clip-board and lab coat work environment taking measurements and noting observations. Turned out the project

was taking fuel samples on milacre plots on a clear-cut unit on the Salyer Ranger District of the Six Rivers NF. Head high slash on 50% slopes!

During my last year at Humboldt, I landed a summer job on the Latour Demonstration State Forest as a Forestry Aid. This was an opportunity to work at a job that was similar to what I had imagined forestry might be like. Roy Richie was the Forest Manager and a great instructor who made sure that the Aids worked on a wide range of projects. It was a good job and a great learning experience.

2.) At what point did you know you wanted to be a forester?

Really, I do not believe that there was any one point in time that I wanted a career in forestry. I would call it more like an evolution. As a youngster reading Field and Stream magazines and summer vacations in the Sierras had me leaning in that direction. But that was simply an attraction to the woods and an outdoor life. More to the tipping point, I remember that during my Junior year in High School the entire class was given an aptitude test to identify our strengths in various subjects. I happened to score well in the biological sciences. After receiving our scores, literature was made available to us describing various education and career options available in each of the subject areas. Included in the materials available was a brochure describing forestry. That closed the loop and from then on, my goal was a career in forestry and the education necessary to get there.

3.) You have had a long forestry career. What changes have you seen, good and bad, in California forestry?

Let's start with the good. There is one piece of legislation that stands out in my mind as having long term benefits for timberland owners large and small and that is the Timber Tax reform Act of 1976. This law made positive changes in which timberland and timber is assessed and taxed in California. For timberland, this law provided for Timberland Production Zone (TPZ) zoning. TPZ zoned timberland is now appraised and taxed based on site quality. The law also provided for a Timber Yield Tax where timber is appraised and taxed according to its market value based on a two-year rolling average of stumpage value in a given market area. These changes provided stability to the method in which timberland and timber would be taxed and removed the pressure to harvest stands prematurely.

Another positive occurred during the late 70's and 80's. An atmosphere of cooperation then existed which lead to a series of projects cooperatively undertaken by UC Berkeley, USFS, forest industry, and the California Department of Forestry. These projects included: the Northern California Forest Growth and Yield Cooperative which gave us the CACTOS and CRIPTOS growth models; The Forest Tree Improvement Cooperative which provided a spring-board for seed orchard development; The True Fir Management Cooperative whose primary purpose was to develop techniques for

successful reforestation of the true fir species and which identified nursery practices and handling techniques that benefited all reforestation efforts; and lastly the USFS-PSW Garden of Eden Study which was designed to identify those growing conditions



(weed control, nutrition, insect control and combinations there-of) that benefited ponderosa pine growth and was replicated at several locations on private lands in the pine region of the State. Many foresters worked hard to see these projects through and at the risk of leaving someone out, I feel the need to mention a few people who either lead a project or got the ball rolling; Professor Lee Wetzel, the Yield Project; Professor Bill Libby and Doug Leisz, Tree Improvement; Professor Ed Stone,

True Fir; and Dr. Robert Powers, Garden of Eden.

Now for the problems. Dan, I wish you had not asked that one as it will be hard for me to reply without quickly getting overly political. Briefly, over regulation and litigation or threats thereof are ever present and costly. On the federal side of the equation, the low level of management is not only discouraging but has caused the loss of lumber manufacturing capacity. The regulatory climate, in part, is a reflection of the political environment we practice forestry in today. Much more could be said on the subject but space for this article does not allow and besides, those reading this have heard it all before. I tip my hat to today's young foresters who have the ability and determination to take on these regulatory hurdles and implement sound harvesting and management practices.

4.) What changes would you make to improve California forestry?

Additional milling capacity and biomass utilization facilities would certainly help. I believe that it is generally recognized that over stocked stands are one of the biggest problems facing California's forests. These over stocked conditions contribute to fuel loading that feeds wildfire. Also, over-stocking leads to inter-tree competition resulting in tree stress contributing to insect epidemics. The silvicultural tools necessary to address this problem are nothing new and certainly, foresters are trained in their application. Implementation of projects to reduce over stocked conditions will obviously generate wood. That said, today's milling capacity is fairly well matched to the available timber supply. It would take assurances for a reliable timber supply before anyone would invest in a new sawmill.

5.) What recommendations do you have for someone preparing for the RPF examination?

In a word, study. Take advantage of the CLFA Exam Preparation Seminar offered annually. If at all possible, form a study group. Questions from previous exams are available on the Professional Foresters Examining Committee's web site. As you review the questions do not just read it and try to develop your answer mentally but write it out and get someone to review your work. If the question seems difficult, research the answer. Become familiar with the current Forest Practice Rules; the Federal and State Endangered Species Acts; and the Federal and State Clean Water Acts. While filling your three year work experience requirement to qualify to sit the Exam, try to gain a wide range of work experience.

6.) Wildfire prevention has become a driving force in forest management decisions. What recommendations would you make to help make our forests more fire resilient?

There are plenty of tools in the tool box to increase fire resilience. And as foresters, we are familiar with these tools. There is one tool however that closely mimics pre-European settlement fire and that is biomass thinning but that technique is constrained by a shortage of facilities that can utilize wood fuel chips. California once had over fifty operating biomass power plants. Today, we have roughly half that number. The reasons for the reduction are mostly economic. Relative to natural gas, biomass is an expensive fuel. But if wind and solar can be subsidized, why not biomass as well. An expanded biomass capacity would provide a renewable source of power and help reduce the risk of catastrophic wildfire. There are numerous examples around the state where that advance of a wild fire had been slowed hence becoming controllable when burning into an area previously thinned.

7.) What recommendations do you have for young foresters starting their career?

A young forester starting out should look ahead and consider that the career path he or she has chosen as a profession and as such support that profession by becoming a member in either of the Society of American Foresters or the California Licensed Foresters Association or both. Active membership should also be encouraged. It is this profession that will give you the opportunity to make a livelihood, so it follows that you should give something back to the profession. In the end, it will benefit your professional development. And by all means, take advantage of the continuing education opportunities offered by these professional organizations. The benefits to you and your career will more than justify the costs.

8.) Are there any "defining moments" in your forestry career which you can share? Anything that helped you form your opinion about forestry?

It is difficult identify one or two defining moments or events. But job satisfaction means a lot. I find it very satisfying to visit an area or stand that decades ago had been previously heavily cut over and subsequently where I administered a sanitation-

salvage operation. It is rewarding to go back today and observe a young thrifty stand of timber on that site. Also, satisfying is to have the opportunity to visit an area where I was involved in a reforestation effort years ago and now see a young stand developing. While I understand that it was the client's investment that made this possible and nature did the growing, it is very satisfying to go back to these sites and say, I had a hand in this. I am thankful that I have been given the years to be able to see the results of these early efforts. *Thank you Len - DS*

Tree Detectives

The Northern California black walnut led scientists into a genetic mystery: is this a rare tree, or a common one?

by *Mary Ellen Hannibal* Photo by Richard Morgenstein

Story reprinted with permission of the Author as published in the winter 2020 edition of Bay Nature Magazine (Baynature.org).

The gnarled, twisting black walnut led scientists into a genetic mystery: is this a rare tree, or a common one? Last April I followed Gretchen Hayes into the leafy shadows and woods along Las Trampas Creek in the East Bay. Pipevine swallowtail butterflies flapped like black handkerchiefs in the warming sun along the trail, from which we swiftly departed. Just a few steps into the foliage and we were surrounded by green, avoiding poison oak, and gingerly stepping across a creek. Hayes, a geomorphologist and veteran environmental consultant, soon zeroed in on the object of our odyssey: a gigantic Northern California black walnut (NCBW) tree. These walnut trees grow between roughly 20 and 75 feet high, with broad-spreading crowns of long, thin, and fluttery pinnate leaves, and their fruits are, well, a little larger than walnut size. The tree Hayes sought was enormous. Its trunk bent and turned in a most torturous perpendicular shape. Undoubtedly a survivor, the tree had a presence as settled and stolid as a tribal elder's.



This particular tree was one of but a handful at the center of a mystery that's been unfolding for more than 150 years. The story reaches not only into the past, but into a future that matters. A large cast of characters across the Bay Area have played a part—city officials, natural resource management agencies, NGOs—but Hayes has mostly been aided and abetted by Heath Bartosh, a native plant botanist, and UC Davis plant sciences professor Daniel Potter. Their painstaking work enabled others to determine whether the Northern California black walnut is rare. Or not.

At issue are the many handsome, tall, leafy trees lining Bay Area roads and creeks, inspiring names of places like Walnut Creek, where the trees provide beauty and shade. Like our iconic oaks, NCBW (*Juglans hindsii*) is a California native and evolved here in tandem with the climate, sheltering and helping to support many other species. Indigenous Californians likely cultivated the tree before Europeans arrived in California, making use of its nutmeats for eating and shells for playing games and making dye.

The botanical mystery surrounding this species begins back in the 1850s, when Europeans eager to capitalize on the state's amazing agricultural potential introduced a nonnative walnut to the landscape. The English walnut, *Juglans regia*, soon succumbed to an endemic soil pathogen. In the 1890s, a storied character from the world of plant breeding entered the picture. Looking to create a robust walnut for commercial purposes, Luther Burbank, "the plant wizard," crossed *regia* with *hindsii*. Burbank thus created a walnut hybrid still cultivated as a rootstock today, an amazingly resilient plant he named Paradox.

Now for the forensic backstory, the technical details which our story turns. Walnut trees are wind-pollinated. While many plants depend on bees, flies, bats, and other creatures to physically transport pollen from the flowers of one plant to those of another, walnuts are metaphorically tickled by the breeze. Pollen from a male flower's stamens on one walnut tree lofts along the invisible currents of breezes. Much of it disperses or gets busy making you sneeze, but sometimes the long, feathery stigma of a female flower captures that pollen, and when it does, reproduction proceeds. Most species of walnut readily interbreed, and it can be near-impossible for a layperson to tell from looking at one whether it is pure anything or a cross of different species. From the time Europeans brought English walnut trees to California, the question of what tree was what species became confused.

In 1908, famed botanist Willis Linn Jepson, who documented much of our state's plant life in the early part of the last century, hypothesized that pure, wild NCBW (*J. hindsii*) could be identified with confidence in just three locations in California. He cataloged the locations of these trees, which eventually became the exemplars by which the question of *J. hindsii* purity were judged. Botanists later trying to sort out the confusion sowed by hybrids reasoned that only trees predating 1850—when walnut growers started planting other species—could be confidently called indigenous. The tree to which Hayes led me, along with those in Jepson's two other locations, were eventually classified as rare by the California Native Plant Society and the California Department of Fish and Wildlife. In some counties, property owners seeking approval to remove or impact an NCBW tree have had to undergo costly and lengthy permitting and mitigation processes.

These requirements weighed on the plans of Swanson Vineyards, a winery along the Napa River near Oakville. Hayes was well acquainted with management at Swanson. The vineyard had participated in a big project aiming to restore ecological functioning to

4.5 miles of the Napa River, an undertaking Hayes coordinated. With 30 other riverside property owners, Swanson converted some of its arable land back to riparian forest. Swanson owners also wanted to put a winery on land where an old home stood, but they couldn't get a permit. Young walnut trees were growing there from nuts of older trees on the property. Napa County puts the onus on the landowner to determine whether on-site trees are genetically pure—and if they are, there is a costly process for removing them. Swanson owners, hoping to prove the trees were neither pure nor rare, enlisted Hayes, who had worked for years with private property owners on similar matters, to investigate. Hayes facilitated genetic testing, performed by UC Davis' professor Potter. Nobody expected it, but the results showed the trees were pure.

Hayes understood right away that the issue went far beyond Swanson Vineyards. Property owners, regional and state land managers, the agricultural industry, conservationists, and biologists would all benefit from knowing whether or not this pure stand on Swanson's property was a rarity in itself. The existence of a surprise pocket of *J. hindsii* purity indicated that more walnut trees in the Bay Area might be pure too. Treating the Swanson case as a pilot study, Hayes set out to fundraise and cast a wide collaborative net in order to figure out the provenance of the NCBW in more Bay Area counties.

Environmental consultant Gretchen Hayes holds the leaves of an old Northern California black walnut tree growing in the East Bay. (Photo by Richard Morgenstein)

Hayes laughs like jingle bells, and she does it often. Looking for deep native plant expertise, she approached Heath Bartosh of Nomad Ecology in Martinez. "I told Heath [about] the issue of the NCBW," Hayes trilled. "The look on his face! I could tell he was all in." He proceeded to pull out a 1970s article that declared the rarity status of NCBW was hopelessly confused. Bartosh initially evinces something of the laid-back surfer dude of his youth—until he gets started talking plants. And indeed, his approach to the black walnut was "all in," delving back into the mists of time and extending across the state.

"The fossil record shows this genus going back 10,000 years," Bartosh said, citing findings about pollen cores from Clear Lake. "More recently, archaeological research uncovered walnut shells in 500-to-900-year-old campfire sites," indicating indigenous Californians used NCBW as a food resource. Bartosh tracked down the NCBW trees Jepson referenced in his work. He also delved further into the historical collection records, locating the first specimens collected by Richard Brinsley Hinds. Hinds was a surgeon and botanist aboard the HMS *Sulphur*, which in 1837 traveled 150 miles up the Sacramento River from Yerba Buena Bay pursuing Britain's exploration of the Pacific. "He brought a plant press along," Bartosh noted, "as any good botanist would. At the time he observed the Sacramento beautifully belted with cottonwoods, willow, and black walnut, all native to California along the floodplains. He deposited the type specimens from Rio Sacramento, 1837, back home at Kew Gardens."

Hayes led Bartosh to the trees on the Swanson property and the pair went on a hunt to identify other trees for genetic testing. UC Davis' Daniel Potter, with Bartosh and colleagues, published the results of their meticulous and detailed research in the plant journal *Madroño* in 2018. The study, titled "Clarifying the Conservation Status of Northern California Black Walnut (*Juglans hindsii*) Using Microsatellite Markers," discerns the genotypes of 158 mostly wild *J. hindsii* trees from 10 counties in Northern and Southern California as well as one county in Southern Oregon, using DNA analysis. The results showed that 71 percent of the trees were "genetically pure," a high number that led the authors to recommend that NCBW no longer be considered rare. Everyone was surprised. "We have many more pure trees than we thought," said Hayes. "They aren't 'rare' at all." As of June 2019, the Northern California black walnut no longer has special protection.

And yet, Bartosh told me, "despite the fact that individual trees are no longer considered rare, stands of *Juglans hindsii* that form communities along riparian areas are still considered sensitive" by both the California Native Plant Society and the California Department of Fish and Wildlife; the NCBW communities are "critically imperiled," according to state and global rankings. "Just because there are a lot of trees doesn't mean the natural habitat is plentiful," Hayes noted. "The trees are endemic to five-to-seven-year floodplains."

Hayes showed me how the topography of Las Trampas Creek evidenced past flooding events, with gradual step-downs of the banks toward the water. "This is how a creek should look," she said. "There's room here for ebb and flow. When it floods, nutrients can settle down and foster plant life, which holds the banks in place." Many streambeds and creek beds in Northern California are sharply incised. In heavy rains the water carves deep troughs into the banks. When NCBW trees are part of the riparian ecosystem, their roots hold the banks in place and allow those gradual step-downs in sediment to accumulate. "It's my job to help restore function," Hayes said, her face crinkling up again, followed by that dancing laugh. "And now I've got more rootstock to work with!"

And with any luck, Bartosh said, these probes into the history of the NCBW will spur appreciation for a tree that has been of "continual significance to the human experience in California dating back to indigenous peoples." He suggested that amateurs and professionals alike make use of observation platforms like CalFlora to record NCBW communities, "so we can continue to better understand the range of this uniquely Californian denizen."

About the Author [Mary Ellen Hannibal](#) - Mary Ellen Hannibal is an award-winning environmental journalist and the author of [Citizen Scientist: Searching for Heroes and Hope in an Age of Extinction](#).

Meetings of Interest and Special Announcements

PFEC Meeting Date

The next PFEC meeting is tentatively scheduled for the week of August 24 through August 28, 2020. It will likely be a webinar-based meeting due to COVID 19 mitigations. Once scheduled, the public may sign up at the Board of Forestry website homepage at <https://bof.fire.ca.gov>. Agendas and other information can be found 10 days prior to the meeting date at the link below: <https://bof.fire.ca.gov/board-committees/professional-foresters-examining-committee-pfec/>

Board of Forestry and Fire Protection Meeting Dates.

The Board's next meeting is scheduled for July 15, 2020 and will be a webinar based online meeting. The remaining 2020 Board meeting schedule has been set and can be viewed online at the following web link: <https://bof.fire.ca.gov/business/meeting-agendas-and-annual-schedules/>

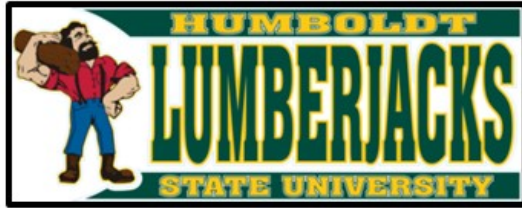
The Forestry Challenge by Diane Dealey Neill

The Forestry Challenge is an academic forestry program that provides high school students with a hands-on learning experience in the forest and an introduction to careers in the natural resources field. There are four 4-day events in locations throughout California each fall.

Even though these events are in the fall, the recruiting process has already begun, which consists of "pre-registering" for an event. Pre-registration is free and is not a formal commitment, it is a reservation for schools at a particular event. Schools pre-registered by June 30 are eligible for a 50% discount off the normal registration fees, which vary by event.

With the uncertainty surrounding school schedules in the fall, off campus travel may not be allowed, so the Forestry Challenge may be adapted to an optional online format. While it is obvious that there are many negatives for an online "event" that by its very nature is hands-on, there are a few positive aspects. One, any school that cannot participate in person could compete in a single online event and all schools could have the same focus topic. Two, the focus topic could be located in a place far from the normal event locations, like Lake Tahoe or the North Coast. And three, recorded presentations could be judged by a small panel that would be more consistent than the panels at regular events. Once the new academic year begins, both onsite and a possible virtual event will be planned according to school travel policies.

Below are profiles of past Forestry Challenge participants who will be attending or are currently enrolled in forestry programs at various colleges and universities.



Grace Gomes

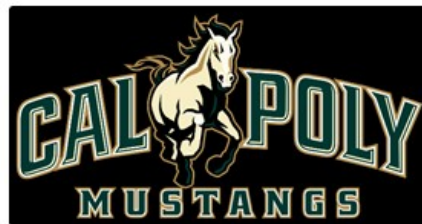
Yreka High School

"I chose to major in forestry because logging has been in my family for many generations and I hope to continue forest management from a different perspective. I also would like to manage our forests to promote healthy timber growth and a healthy forest for future generations to be able to enjoy. I chose to attend Humboldt State University because I noticed that they have a rather respected forestry program and they were one of the few California universities to offer forestry as a major."



Kai Balala

Ponderosa High School



"I chose Forestry and Natural Resources because of my love for the forest and protecting it. Cal Poly SLO has an amazing Forestry and Natural Resources program with a lot of hands-on learning and an amazing location in San Luis Obispo. I am grateful for the learning opportunity with the Forestry Challenge which impacted my choice of choosing the Forestry and Natural Resources major."

Maddie Washburn

Ponderosa High School



“Growing up I was always curious how the life around me flourished. After I began my AP Environmental Science class at Ponderosa High School, I fell in love with forestry. I attended the Forestry Challenge and was immersed in a passionate and exciting field. I began to look for a college that would allow me to truly explore the depths of this passion. I had originally heard about Oregon State through Forestry Challenge volunteers. I looked into the school and found it would be a perfect fit for me. It is ranked among the top three colleges of forestry in the world and the research opportunities are endless. I can’t wait to begin working in a field that benefits a resource people depend on.”



Makena Plourde

Granada Hills Charter High School



“Choosing forestry as my major seemed like the only logical thing to do as it combines my two biggest interests: being outdoors and partaking in environmental stewardship. By attending NAU I will explore these passions while also being part of a close-knit community that values environmental sustainability.”



Anna Woodall

"I chose to pursue forestry because I love the challenging combination of math, science, and hard physical work - all while in an ever-changing environment. While the forestry program at Shasta College is significantly smaller than that of a large university, what it lacks in size, it makes up for in connections. Professors at Shasta work hard to connect students to the career they want, and the program is well supported by the many forestry and fire agencies located close by. After my time at Shasta College, I plan to go on to complete my bachelor's degree, and eventually obtain my RPF license to work in the private timber industry."



Sierra Stalter



"While attending Minarets High School, I was a four-year member of the FFA Forestry team and attended two Forestry Challenges. I'm grateful to have attended these two events where I learned how to present professionally and work as a team, among other forestry-related job skills. After high school, I worked with the Youth Conservation Corps (YCC) and was part of the Sierra National Forest Recreational Crew. The crew worked on numerous backwoods projects like restoring Off-Highway Vehicle (OHV) trails, bridge reconstruction, hiking trail restoration, and campground surveys. After working as a YCC crew member, I started taking Forestry and Natural Resources classes at Reedley Community College. The skills I learned at the Forestry Challenge have helped me get a jump start in my classes at Reedley and I couldn't be happier with my decision to continue my education. After Reedley, I have plans to pursue a degree at Humboldt State University. I plan to major in forestry or botany and minor in Native American Law/Studies before going to work as a botanist."

CalVTP Update

The Board approved the CalVTP and certified the Program EIR on December 30, 2019. CAL FIRE and other state and local agencies are now working on VTP implementation.

You can find the most current version of the Final Draft CalVTP and a complete list of RPF Roles under [Appendix PD-3 - Project Specific Analysis](#) at the Board website located at this link:

<https://bof.fire.ca.gov/projects-and-programs/calvtp/>

Word search the PDF document for the acronym “RPF” to view the related RPF roles.

Forestry Career Information

CAL FIRE - Bulletins for Forester I, II and III has been posted on the CAL FIRE website <https://www.fire.ca.gov/> with a final filing date of July 14, 2020.

California Department of Tax and Fee Administration (CDTFA) - Bulletins for Forest Property Appraiser can be found here:

<https://careercenter.eforester.org/job/forest-property-appraiser/54103403/8482/>

California Licensed Forester Association Employment Announcements

<https://www.clfa.org/employment-announcements/>

Outreach for Future RPFs by Dan Stapleton

This year, prior to the COVID 19 shutdown, I made outreach trips to the CCC's in Redding and Stockton, Mendocino College, Upper Lake High School and Potters Valley High School in Mendocino County, and Yreka High School in Yreka. I enjoy reaching out to young folks about forestry as a career choice. I am prepared to tailor my presentations to all interested groups from high school to university level students, to Boys and Girl Scouts, to the CCCs or FFA. Please help me to pass the word about careers in forestry and send me any suggestions you may have about groups who may be interested in hearing about career development and opportunities in the forestry field. Call the Office of Professional Foresters Registration 916-653-8031 or email me at dan.stapleton@bof.ca.gov.

Disciplinary Actions Report

Since the last issue of the Licensing News, no new complaints are being investigated by the EO. XX END XX