

Nomination: California Forest Pest Council 2021 Francis H. Raymond Award

Introduction

The California Society of American Foresters (CA SAF) nominates the California Forest Pest Council (CFPC) for the 2021 Francis H. Raymond Award. The CFPC is recognized by the CA SAF as an integral and important component of promotion and management of the health of the state's forests at the landscape level across all ownerships. The CFPC promotes forest health education and rises to tree health challenges by marshaling development of tactics, research and collaborative efforts for catastrophic forest health events or upon arrival of new invasive species. The council's messages and products are useful to natural resource professionals, landowners and the public.

The CFPC through its inclusive membership, collaborative methods, and technical assistance, as well as the attention that it draws to forest health conditions has been instrumental in catalyzing investments of millions of dollars in research, detection, monitoring and other activities to support forest health management in California.

Working relationships fostered by the CFPC set the foundation for the implementation of multi-jurisdictional responses to forest health issues.

Education and awareness efforts by CFPC members have led to increased community involvement and responsibility for forest health management at the local level.

These services result in a coordinated approach to solve forest health problems that incorporates the latest research and provides technology transfer to field practitioners.

2021 marks the 70th anniversary of the California Forest Pest Council. Established in 1951, originally as the California Pest Control Action Committee, its mission was to recommend policies and priorities for forest pest control in California, and to coordinate such activities¹.

Among the initial matters suggested for consideration were:

- To annually examine plans and programs for forest pest control projects on federal, state, and private lands, and to make recommendations as to the approval or disapproval of the recommended action(s). It should be noted that there was widespread tree mortality attributed to western pine

¹August 17, 1951, the State Board of Forestry was informed by State Forester Swede Nelson of the creation of the Council, and the recommendation that it be given some official recognition by the Board. The Board then developed and passed the following resolution: "That the Board of Forestry commends the Western Pine Association for sponsoring this 'California Forest Pest Control Action Council', and the Board herewith gives its official recognition and invites the Council to be the official advisory group to the Board of Forestry on forest insect and disease problems." The Resolution was moved by member Wendell T. Robie, seconded by member Frank W. Reynolds, and it passed by unanimous vote (six of the then seven-member Board were present).

beetle damage throughout northeastern California in 1951 following increasing western pine beetle activity in 1950 near Yosemite and Kings Canyon National Parks, and defoliation by spruce budworm in the Warner Mountains (Modoc County).

- To review state laws pertaining to forest pests and to determine their adequacy and recommend changes where appropriate.
- To review current forest pest control methods and recommend any needed changes or actions.
- To review cooperation in forest pest control on forest lands regarding indirect (sanitation salvage) efforts, along with direct control efforts, and to recommend changes where needed.
- To review policies and administration of the forest pest control agencies with regard to direct control efforts, and to recommend changes if needed.
- To review the economic analysis of the white pine blister rust program, along with other forest pest control programs, and to comment where appropriate, along with suggested changes in the scope of the programs.

Today, the California Forest Pest Council mission is to “foster education concerning forest pests and forest health and advises the California State Board of Forestry and Fire Protection on forest health protection.” It is a member of the Western Forest Pest Committee of the Western Forestry and Conservation Association. The CFPC comprises private and public forest managers, entomologists, pathologists and others interested in the protection of forests from damage caused by animals, insects, pathogens and weeds.

The CFPC:

- Coordinates the detection, reporting, and compilation of pest damage
- Evaluates pest conditions in California forests
- Makes recommendations on pest control to forest management and protection agencies and forest landowners
- Reviews policy, legal and research aspects of forest pest management and submits recommendations to appropriate authorities
- Fosters education concerning forest pests and forest health
- Is a 501(c)3 non-profit, public benefit corporation
- Is made up of several working committees that focus on various areas of scientific interest, which include the Weed, Insect, Disease, Animal Damage, Southern California and Editorial committees and responds to new pests by establishing special task forces.

70 Year History and Key Milestones

- Advisors to the California State Board of Forestry and Fire Protection
- Standing Committees, which are responsible for:
 - Annual Pest Conditions Reports
 - Annual meeting to share updates and research about forest pests and conditions
 - Annual Weed Management, Insect, Disease and Animal Damage Tours
- Task Forces
 - Invasive Shot Hole Borers Working Group - Established 2015
 - Goldspotted Oak Borer Task Force - Established 2013

- Firewood Task Force - Established 2011
- California Oak Mortality Task Force (COMTF) - Established 2000
- Pitch Canker Task Force - Established 1994
- Volunteer/Collaborative Effort

Advisors to the California State Board of Forestry and Fire Protection

As an advisory body to the California State Board of Forestry and Fire Protection (BOF), the California Forest Pest Council provides monthly updates to the BOF at its regularly scheduled meetings on trending forest health and invasive species issues.

The CFPC has adopted resolutions over the years that resulted in the BOF and other agencies taking action to cooperatively work to address forest health issues.

CFPC Resolutions Adopted that Resulted in BOF or Other Action:

- 2012 Zone of Infestation for Goldspotted Oak Borer (GSOB) established by the BOF and updated 2014, 2016, 2019, 2020
- 2011 Firewood Task Force - letter 1/5/2011 to Chairman Stan Dixon, BOF
- 2009 (GSOB) recognized as a significant threat to California forests and established coordination with USDA APHIS PPQ CPHST Risk and Pathway Analysis Program - letter 10/9/2009
- 2002 Sudden Oak Death Management Act of 2002 passed by State Legislature
- 2000 California Oak Mortality Task Force established by BOF
- 1997 Pitch Canker Task Force (PCTF) - The BOF endorsed the PCTF's Pitch Canker Action Plan and established the Pitch Canker Zone of Infestation
- Zones of Infestation adopted by the BOF for a number of forest insect and disease conditions in the past three decades
- Historical resolutions since 1958 include a broad range of topics such as staffing expertise at federal and state government, recommendations to State Agencies such as Cal Trans and the Department of Fish & Game, salt use on roads, deer, forest management practices regarding pesticide use, pocket gopher control, timber salvage, borax treatment and needs for specific research.

Standing Committees - Established 1958

Four of the standing committees (the Weed, Insect, Disease and Animal Damage Committees) are responsible for:

- Leading and coordinating the Annual Meeting and Field Tours
- Providing education and training to resource professionals including Continuing Education Credits (CEU) recognized by the California Department of Pesticide Regulation (DPR) for licensing and certification requirements and the Society of American Foresters Certified Foresters program
- Providing input to the annual California Forest Pest Conditions Report and the CFPC -E-newsletter

Weed Committee

Goal

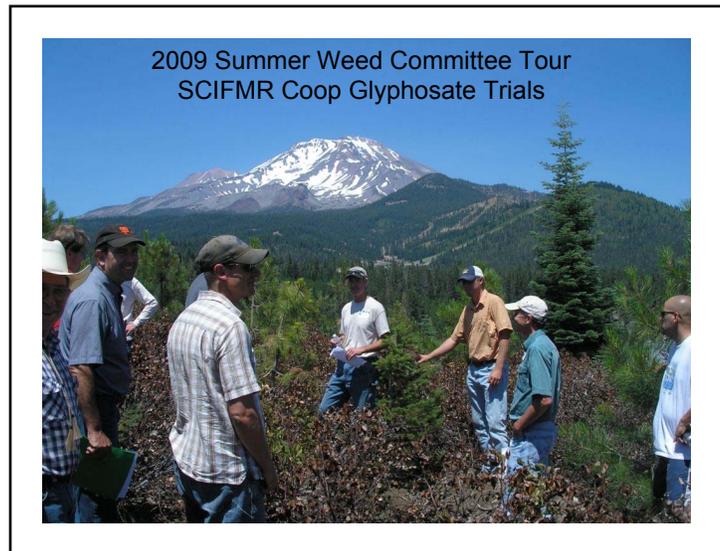
- Address ways of controlling competing vegetation in California's forests, plantations and rangelands, and maintenance of shaded fuel breaks.

Highlights and Accomplishments

Annual Weed Tour - The Weed Committee hosts an annual, two-day field tour in July. The location moves from the Central Sierra's, to the Northern Sierra/Southern Cascades, to the North Coast. The tour attracts at least 100 attendees, comprising of foresters, resource professionals, and researchers. The tour provides up-to date knowledge, new technologies, and a forum to exchange information. Continuing Education credits are earned.

Examples of Tours include:

- 2021 - planned at Placerville
- 2020 - planned for the Central Sierra, but it was postponed to 2021 because of COVID-19
- 2019 - North Coast area, based in Fort Bragg
- 2018 - Northern Sierra/Southern Cascade, based in Chester
- 2017 - Central Sierra, based in Sonora
- 2016 - North Coast area, based in Arcata



1. **The Forest Vegetation Management**

Conference, which the **Weed Committee** helps organize, meets annually in January. This Conference meets in the Redding area and draws close to 200 attendees. Presentations are given in a classroom setting and continuing education credits are earned.

2. **Reforestation Practices for Conifers in California** is a recently published product of the Weed Committee and Forest Vegetation Management Conference. This manual describes reforestation practices and offers useful information on different reforestation practices for California's forests. This is a useful tool for new foresters and the public. Available at <https://www.fvmc.org>, Manual cover page, https://f3839a3d-9851-4def-b527-fb0ceab9a570.filesusr.com/ugd/80da86_d475e36472224481ad37e760fe9e1bb5.pdf.

3. The Weed Committee **contributes to the California Interagency's Noxious and Invasive Plant Committee**. Mapping of noxious weed areas and control methods are provided.

Insect Committee

Goals

- Foster an open environment for entomologists and other forest and urban tree professionals to communicate about insect pests and integrated pest management.
- Serve as a platform for mentoring, student participation, and professional development.

Highlights and Accomplishments

1. Coordinate speakers and presentations at the **annual CFPC meeting**. Agenda topics cover native and invasive insects, abiotic issues such as drought and wildfire, and new research and development of tools for land managers to combat insect-related tree injury and mortality.
2. **Co-lead the Annual Insect and Disease Field Tour:**
 - Tours are regularly targeted at private, consulting and government foresters and occasionally urban foresters and arborists
 - 2019 Fort Bragg tour looked at coastal pine decline including pitch canker, balsam woolly adelgid, sudden oak death and regeneration and management
 - 2018 Chester tour provided an update on California forest health, black stain root disease, Elytroderma needle blight and Heterobasidion root disease
 - 2017 Tuolumne County (combined with Weed Tour)
 - 2016 Happy Camp tour looked at white pine blister rust, black stain root disease and Port-Orford cedar root disease
 - 2015 Felton tour targeted urban foresters and arborists to improve diagnosis and management of urban forest pests, recognition and treatment of SOD and pitch canker
 - 2014 Forest Pest Recognition and Management Training, Redding, under the CFPC umbrella

Disease Committee

Goals

As a collaborative group, the committee addresses native and exotic forest disease issues in California and:

- Recommends the formation of special task forces as needed under the CFPC to coordinate, educate and help manage certain diseases; these include the Pitch Canker Task Force for pitch canker (*Fusarium circinatum*) and the California Oak Mortality Task Force for sudden oak death (*Phytophthora ramorum* disease).
- Mentors students interested in forest pathology and encourages professional development within the forest pathology community.

Highlights and Accomplishments

1. Coordinate speakers and presentations at the **annual CFPC meeting**
2. **Plan annual field trips** with other committees
 - 2020 – planned for the Napa County area but cancelled due to COVID-19
 - 2019 – Fort Bragg area, pests of the north coastal region
 - 2018 – Chester area, pests of northeastern California
 - 2017 – Sonora area, plantation forestry issues held with the Weed Committee
 - 2016 – Happy Camp, White pine blister rust and interior northern CA pests
 - 2015 – Happy Camp, cancelled due to federal



budgetary concerns

- 2014 – Monterey area, update on sudden oak death and pitch canker disease
3. More recently the Disease Committee has taken special interest in soil-borne and other Phytophthora species, both native and exotic, that have become issues in restoration plantings around the State. Other areas of growing concern have been the diseases associated with Invasive Shot Hole Borers and Mediterranean Oak Borer, the growing number of native and exotic tree and shrub species impacted by dieback and mortality in the greater Bay Area and the role of wildfires in forest disease issues.

Animal Damage Committee

Goals

- Provide education and training on habitat composition and structure and how that determines species associations.
- Provide vertebrate pest management strategies for use in forest settings.
- Provide perspectives on animal damage.

Highlights and Accomplishments

1. Coordinate speakers and presentations at the **annual CFPC meeting**. Examples of topics covered include wild pigs, status of beaver, butterflies and porcupines, barred owl control, bear damage in plantations, anti-coagulant rodenticides in wildlife poisoning, gopher control, golden trout and grazing, and California hummingbirds
2. Participate in **annual Insect and Disease Tour**
 - 2019 - Fort Bragg - topic bear damage

Southern California Committee

Goals

- Serve as the frontline coordinator of significant outbreaks of native and invasive pests in the forests, woodlands and urban forests in southern California.
- Provide leadership and oversight to several specific pest working groups and coordinate major forest pest activities in southern California.

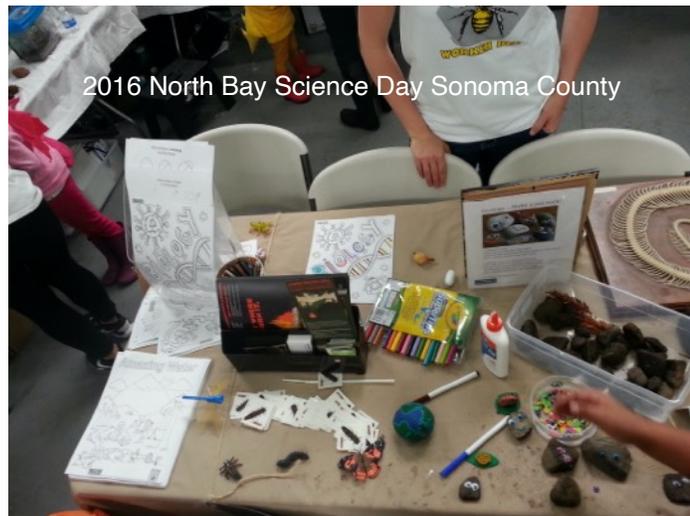
Highlights and Accomplishments

1. **Serves as the overarching coordinator** and action group to respond to native and non-native tree pests affecting Southern California as established by a **2015 CFPC resolution**.
 - The expanding invasion and introduction of new non-native beetles (Goldspotted Oak Borer and Invasive Shot Hole Borers) and associated diseases led to the Committee evolving to address pest complexes rather than as single issues. The Southern California Committee assumed the tasks of the previously authorized GSOB Task Force and included the Polyphagous Shot Hole Borer Working Group.
2. **2014 Interagency response to the polyphagous shot hole borer (PSHB)**
 - Created PSHB research, management and outreach collaborative tools group.

- Produced the website [PSHB.org https://ucanr.edu/sites/pshb/website](https://ucanr.edu/sites/pshb/website)

3. **2009 Goldspotted Oak Borer (GSOB -*Agrilus auroguttatus*) Working Group** was established. It was upgraded to a Task Force by the CFPC in 2013. This 200-member coalition provides a forum to identify funding, partnerships, networking, educational outreach and strategic regulation to protect oak trees and slow the spread of the GSOB. The following has been accomplished:

- Work with elected officials and representatives at local, state, federal and tribal level to slow the spread of GSOB and supports research to develop prevention and management and control strategies.
- Support the Firewood Task Force and work with the firewood industry to reduce spread of invasive species including GSOB.
- Prepares and distributes quarterly GSOB situation reports.
- Disseminate information, provide outreach and education, conduct field training and student citizen scientist training, including the committee-produced GSOB mobile tracker APP and web-based reporting for use of laypeople to report suspect trees.
- Zone of Infestation Established by the California Board of Forestry in 2012 and updated in 2014, 2016, 2019, 2020.
- Developed a GSOB strategy document enabling federal funds from the US Forest Service to combat the pest.
- The GSOB program received 2009 American Recovery and Reinvestment Act (ARRA) funding to implement the GSOB strategy.
- Produced the GSOB Website <https://ucanr.edu/sites/gsobinfo/> .



4. **2003 Southern California Bark Beetle Response**

- At the request of the SoCal Committee the CFPC adopted a resolution to address tree mortality in 2002. This served as support documentation for the Governor’s State of Emergency Proclamation (Energy Resolution E-3824, April 2003) that directed southern California utility companies and the California Department of Forestry and Fire Protection (CAL FIRE) to remove dead trees and reduce the threat of catastrophic wildfires. Over \$500 million was spent on this work.
- CFPC members were active in interagency groups responding to major tree mortality events that led to groups such as the Forest Area Safety Task Force (San Diego County) and Mountain Area Task Force (San Bernardino and Riverside Counties). These groups promoted protection of life and property and restoration of forest health through hazardous fuels reduction.
- These groups set a model of working relationships that have in the past decade evolved into larger efforts such as the Governor’s Forest Management Task Force.

Editorial Committee

Goals

- Produce education and outreach materials of interest to the CFPC and the public.

- Support the CFPC to promote communication and collaboration to address forest pest and health conditions in California.

Highlights and Accomplishments

1. Publish Annual California Forest Pest Conditions Report

- The first official CFPC Conditions Report was dated 1953.
- The annual CFPC Conditions Report combines the observations of the entire forest pest community (agencies, universities, industry) and acts as both an educational tool and a historical document about forest pests of California.
- The document is presented annually to the BOF and is also used as the basis for the California Forest Health Highlights, a required document for the United States Forest Service (USFS).
- In past years, the document was printed and provided to all state libraries for their permanent collections. Due to high printing costs and the ready availability of the internet the document is now only published and available in an on-line format. The most recent versions of the Pest Conditions Report are available on the CFPC website and the USFS Region 5 website. The recent documents are made available to the blind and visually impaired by being published in formats that are “Americans with Disability Act” Section 508 compliant.
- Pest conditions reports from 1960 - current are available at the CFPC website <http://caforestpestcouncil.org/2010/03/california-past-forest-pest-condition-reports/>.

2. **E-Publish Newsletter** 1-10 times per year since 2014. This newsletter provides updates on new pests, professional development, education and training opportunities. Recent newsletters have covered topics such as pests found in firewood and the new Mediterranean Oak Borer/Disease Complex.

3. **Tree Notes Series** is published by the California Department of Forestry and Fire Protection (CAL FIRE) in conjunction with the CFPC. Over 30 Tree Notes are available covering insect and disease issues, forest health, survival of fire damaged trees and urban forestry issues. The entire series is in the process of being revamped to update the information and to make the documents properly available to the blind and visually impaired.

Task Forces

Firewood Task Force - Established 2011

Goals

- In recognition that an increasing number of forest pests detected at California’s Border Protection Stations entering the state on firewood and the GSOB, *Agrilus auroguttatus*, that caused oak mortality to the southern California oak woodlands, the CFPC passed a resolution establishing the Firewood Task Force.
- Relative to this threat, the Council’s Resolution directed the new task force to:
 - 1) Engage concerned stakeholders
 - 2) Synthesize, evaluate and publicize relevant information
 - 3) Develop best management practices and appropriate outreach materials
 - 4) Identify and support appropriate research, management, and education programs

- Dr. Donald Owen of CAL FIRE organized the task force and served as its first chair

Highlights and Accomplishments

1. Multi-Agency/Community Response

- 2018 Firewood Task Force participated in the Continental Dialog on Non-Native Forest Insects and Diseases, Alabama
- 2018 Coordinated with California SAF's Forestry Institute for Teachers about Don't Move Firewood messaging
- 2011 Letter to Governor Jerry Brown in support of California Department of Food & Agriculture Border Protection Stations to protect the state's forests and economy
- 2011 Letter to the US Department of Agriculture and Plant Health Inspection Service regarding support to investigate firewood moving from Mexico as a forest pest pathway.



2. Education and Outreach

- Website <http://www.firewood.ca.gov>
- Grants:
 - 2016-2017 CAL FIRE Grant (#8GA16600) for \$10,000 to CFPC Firewood Education Program
 - 2011-2012 CAL FIRE Grant (#8C10406) to CFPC Firewood Education Program
- Outdoor Advertising:
 - 2014 Oct-Dec. – Eight permanent Buy It Where You Burn It signs erected: Cuyamaca State Park along Highway 7; Highway 76 near Mount Palomar; Highway 74 leading to Idyllwild; Mission Trails Regional Park in San Diego; and four locations on the Descanso Ranger District of the Cleveland National Forest
- Publications Advertising:
 - 2018 Best Management Practices for Arborists and Tree Workers <http://ipm.ucanr.edu/PDF/PUBS/greenbulletin.2018.fall.pdf>
 - 2016 June/July to 2015 June/July In Gear magazine ad (1-year contract, 6 issues): print ad and online
 - 2015 May to August California Sportsman magazine ad ran monthly: print ad, website banner, and industry news tab on homepage with Task Force information
 - 2012-2013 Multiple press releases issued appeared in following publications; Highland Community News, San Bernardino (10/12), Salinas Californian (11/2), Colusa County Sun Herald (11/12)
 - 2011 Sacramento Bee (10/11), Idyllwild Town Crier, Press Enterprise
 - 2011 Public Service Announcements in English and Spanish
- Outreach Materials Produced and Distributed at Events:
 - 2017 Firewood Task Force reached 500,000 people with outreach program
 - Produced 'Frequently Asked Questions' flyer
 - 5000+ posters produced and distributed



- 4000 decks of invasive pest playing cards
 - 5000 GSOB temporary tattoos
 - GSOB BMPs for firewood
 - GSOB-specific “Don’t Move Firewood” posters
 - 500 ice/hot packs
 - 200 water bottles
 - 250 frisbees
- Public Outreach - Examples include the following:
 - Targeted campgrounds and parks throughout the State
 - Statewide events: International Sportsmen’s Expo and Ag Day, (Sacramento), Marin County Farm Day (San Rafael,) Earth Day Fair with Rocketship Los Sueños Academy (San Jose), Idyllwild Earth Day, Green Kids Conference (Mountain View), California State Fair, San Diego Co. Fair, Insect Fair (Encinitas)
 - News release: <https://www.lakeconews.com/index.php/news/46518-protect-californias-forests-and-trees--buy-it-where-you-burn-it?tmpl=component>
 - Best Management Practices
 - Monitoring
 - 2011 survey to assess outreach efforts

California Oak Mortality Task Force (COMTF) - Established 2000

Goals

- Minimize the impact and spread of *Phytophthora ramorum* on natural, horticultural, and human communities.
- Coordinate an integrated response by all interested parties to address *P. ramorum*.
- Serve as liaison to local, state, national, and international groups.

Approach:

- Provide technical assistance and education to professionals, homeowners, tribes, and volunteers throughout California to protect against *P. ramorum*.
- Develop strategies and techniques to support adaptive, integrated pest management programs; demonstration areas; and trials for *P. ramorum* in urban and wildland forests as well as horticultural nurseries. Update, collate, and evaluate the efficacy of best management practices.
- Maintain www.suddenoakdeath.org as a science-based, comprehensive source for information and educational materials relating to the treatments, biology, and risks of *P. ramorum*.
- Identify needs and potential sources of funding, staffing, and other resources to address *P. ramorum* and other plant pathogens and pests in California forests.
- Strengthen working relationships between scientists, arborists, regulators, nursery industries, tribes, volunteers, and other professionals. and other natural and cultural resources of California.

Highlights and Accomplishments

The contributions of the COMTF over the past 21 years are many and difficult to convey in a short summary, but following are highlights of the Task Force’s contributions to sustain forest health in California and assist professionals.

1. **Building consensus and launching a response:** The COMTF provided a structure and forum to stand up a response to this new invasive forest and horticultural pathogen. In 2000, when *P. ramorum* was first discovered, the plant pathogen was new to science, as was sudden oak death. The COMTF provided leadership and technical assistance for a science-based response for California, the USA and globally.
2. The Sudden Oak Death Management Act passed by the State Legislature in 2002.
3. Its **website**, www.suddenoakdeath.org, is the top Google search result for “sudden oak death” and has been consistently recommended by numerous organizations as the best source for science-based information on this quarantine pathogen. The website includes a GIS-based map of pathogen distribution, one of the first for a forest tree disease. A photo gallery, diagnostic guides and other visual materials are provided to aid in disease identification and management.
4. A **chronology** documents the history and significant developments in forests, communities and nurseries. Currently at 77 pages, this chronology (https://www.suddenoakdeath.org/wp-content/uploads/2020/10/PRamorumChronology_10.01.20.pdf) starts in 1995 and concisely lists scientific, regulatory, legislative and management developments. A bibliography and newsletters also track progress in addressing this invasive forest pathogen.
5. **Education, outreach and partnership** activities have been provided to hundreds of thousands of people. The COMTF has organized seven Sudden Oak Death Science and Management Symposia, including published Proceedings, in cooperation with the US Forest Service, Pacific Southwest Research Station and Forest Health Protection. The COMTF provides technical assistance via workshops, tours, training sessions, conferences, publications, blogs, videos, a YouTube station, media relations, textbook materials and public presentations. Tribal summits and workshops have aided consultation, cooperation and assistance to American Indians.
6. **Customized best management practices** developed to limit pathogen spread for forests, homeowners, tribal gatherers, nursery growers and others.
7. **Response assistance for a high-profile, federal and state quarantine pest.** The COMTF hosted or assisted with Government Accountability Office investigations and provided technical guidance to legislators, regulators and politicians – locally, statewide, federally and internationally.
8. **Continued monitoring of this pest** and its impacts is accomplished by members of the Task Force working in collaboration and transmitting regular summaries, maps, and updates to interested parties, including the California Forest Pest Council and the California Board of Forestry and Fire Protection.
9. The SOD program received **\$1.7 million in 2009 ARRA funding** to combat *P. ramorum* and annually receives ~\$500,000 of US Forest Service funds that is matched with partner funds.

Pitch Canker Task Force - Established 1994

Goals

- Facilitate cooperation across diverse interests related to management and treatment of trees with pitch canker.
- Provide technical assistance to manage trees and forests infected with pitch canker.

Highlights and Accomplishments

1. **Funding:** Provided technical assistance to CA SB 1712 which allocated \$350,000/yr for six years to undertake the management of pitch canker invasion of California's Monterey pine forests. SB 1712 was sponsored by Senator McPherson and Assemblyman Fred Keeley. The bill was passed and signed into law on September 21, 1998.
 - Procured a grant from the Packard Foundation to develop a community conservation plan for Monterey pine.
 - In partnership with Pacific Gas & Electric, organized several "Space for Trees" golf tournaments. The fundraising and partnership-building events were held at Pebble Beach golf courses and featured participation from NASA astronauts. Media coverage and funding supported efforts to prevent the spread of pitch canker.
2. **Management:** Developed strategies to prevent and slow disease spread, best management practices, treatments for green waste, developed diagnostic guides, pest notes and other extension publications to support pitch canker management.
3. **Monitoring:** Coordinated annual surveys to identify new infestation areas and understand the extent and incidence of the pathogen in California. In 2004 the Pitch Canker Task Force was active when the disease was found in New Zealand on scion material that came from a USFS Douglas-fir seed orchard in Placer County. Surveys resulted in the destruction of the source trees and monitoring and surveys of the local area were started.
4. **Communications, Education and Outreach:** Created and maintained a comprehensive website for pitch canker (ufe.calpoly.edu/pitch_canker/) with photographs, symptom guides, maps, extension materials, pest alerts, management guidelines, research publications, etc. Compiled key messages, materials for educational and outreach. Pitch canker and other threats to native Monterey pine stands were highlighted in issues of *Fremontia*, the magazine of the California Native Plant Society.
 - Annually hosted pitch canker summits at the Sunset Center in Carmel. Organized countless training sessions and field trips for arborists, urban forest managers, agriculture department staff, and other professionals.
5. **Policy:** Served as a forum for risk assessment and quarantine initiation discussions with County Agriculture Commissioners, California Department of Food and Agriculture regulators, researchers, land managers and other affected parties. The pathogen was rated a "B" rated pest. Discussions organized by the PCTF were instrumental in maintaining cooperation as these regulatory questions were wrestled with.
 - Provided regular updates and advice on pitch canker to the BOF. The Board endorsed the PCTF's Pitch Canker Action Plan and established the Pitch Canker Zone of Infestation.
 - Worked with the newly established California Biodiversity Council to explore options for preserving native Monterey pine stands impacted by pitch canker and other threats.
 - Provided technical assistance for CA SB1712, passed in 1998.
6. **Research:** The PCTF coordinated research and supported students through an annual research review that featured research progress from investigators from UC Davis, UC Berkeley, CalPoly SLO, etc.
 - In cooperation with the USFS Forest Health Protection & CAL FIRE, coordinated maintenance and measurement of permanent plots in Monterey pine and knobcone pine to understand impact and spread.
 - Update annually, the PCTF maintained a list of research needs to address all aspects of pitch canker control in parks, open space, Christmas tree plantations, nurseries, etc.
 - Assisted with a Monterey Pine Genetic Conservation workshop held April 2000 in Big Sur, California and other international research meetings.

Volunteer/Collaborative Effort

The CFPC can be characterized as a group of “first responders” from inter-agency and multiple stakeholders that provide the leadership, guidance, and support needed to address forest health problems. The CFPC facilitates cooperation across a diverse coalition of interests: land managers, environmentalists, private citizens, researchers, forest pathologists, entomologists, city and county managers, urban foresters, utility companies, Christmas tree producers, forest nursery growers, regulatory officials and others.

Over the CFPC’s 70-year history representatives from the following agencies and stakeholder groups have worked in collaboration (partial list):

- California Dept. of Forestry and Fire Protection (CAL FIRE)
- California Dept. of Food and Agriculture
- California Polytechnic State University, San Luis Obispo
- USDA Agriculture Plant Health Inspection Service
- USDA Forest Service
- U.S. DOI National Park Service
- U.S. DOI Bureau of Indian Affairs
- U.S. DOI Bureau of Land Management
- U.S. DOI Fish and Wildlife Service
- University of California
- University of California Cooperative Extension
- Native American Tribes
- County Agriculture Departments
- Forest Industry
- Plant Nurseries
- California Invasive Plant Council
- Crop and Tree Protection companies
- CA Department of Pesticide Regulation
- CA Invasive Species Advisory Committee
- US Customs and Border Protection
- CA Department of Fish and Wildlife

The 2020 Annual California Pest Council Meeting presenters group provides a good example of the diverse participants that collaborate in Pest Council activities. Last year’s presenters were represented by the following: Cary Institute of Ecosystem Studies, Point Blue Conservation Science, USDA Forest Service Pacific Southwest Research Station and Pacific Northwest Research Station; Humboldt State University; California Poly Technic State University; USDA Forest Service, Pacific Southwest Region; California Native Plant Society; U.C. Cooperative Extension, Mendocino, Lake and Sonoma Counties; California Dept.of Food and Agriculture; CAL FIRE; U.C. Berkeley, Corteva Agriscience,; U.C. Davis, and the Ontario (Canada) Forest Research Institute.

Highlights and Accomplishments

1. Collaborative Efforts have resulted in recognition with awards by federal and state agencies:

- **2021 Integrated Pest Management Achievement Award** (Department of Pesticide Regulation, California EPA). This award recognized the work of the Phytophthoras Native Habitats Work Group (a subgroup of CFPC’s COMTF that includes native plant nursery growers, land management agencies, researchers, regulators, nonprofits and others involved in forest health and restoration) for its work to minimize the spread of Phytophthora pathogens through a comprehensive, unified program of management, monitoring, research, education and policy.
- The Phytos Work Group along with the California Native Plant Society developed best management practices (<http://www.suddenoakdeath.org/welcome-to-calphytos-org-phytophthoras-in-native-habitats/resources/#nursery>) to grow clean restoration nursery stock. The

Best Management Practices (BMPs) were written to respond to the introduction of a new to the U.S. plant pathogen, *Phytophthora tentaculate* that was inadvertently outplanted into multiple restoration sites on infested California native plant nursery stock.

- The BMPs have been adopted by many restoration and native plant nurseries and is required by agencies when contracting for restoration nursery stock. The BMPs are the basis for the Accreditation to Improve Restoration (AIR) program which was piloted in 2018 in 12 northern CA restoration nurseries, and in 2020 is being adopted in 12 Southern CA native plant or restoration nurseries. In 2021, AIR is planned to become a voluntary, statewide certification program administered by the California Department of Food and Agriculture.
- **2012 Two Chief's Partnership Award** (USDA Forest Service and Natural Resources Conservation Service) to the Redwood Valley Collaborative, https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ca/newsroom/releases/?cid=nrcs144p2_064280
- **2011 Excellence in Invasive Species Partnership Development** (USDA Forest Service). This national award recognizes a Forest Service individual or unit who demonstrates outstanding, dedicated leadership in the development of partnerships to address invasive species threatening the National Forest System.
 - Dr. Susan Frankel – Forest Service Pacific Southwest Research Station, in recognition of her many efforts to lead the Sudden Oak Death research program, and for developing successful partnerships and expanding collaboration with a wide range of scientists, government organizations, and other stakeholders at the local, regional, national, and international levels. Her work has helped expand the scientific knowledge about the high risk invasive pathogen *Phytophthora ramorum* that causes Sudden Oak Death, and develop practical management and regulatory solutions to protect forests across the Nation.
- **2011 Excellence in Invasive Species Prevention** (USDA Forest Service) State and Private Forestry – Pacific Southwest Region, in recognition of their high level of support and region-wide leadership to develop a campaign to prevent the spread of invasive insects and pathogens through infested firewood movement, widely regarded as a very significant threat to forest health. Members of this group have played significant roles in expanding coordination and collaboration with many stakeholders in the public, private, and non-profit sectors, and helped adapt similar prevention campaigns used in other states to meet the needs in California. The awardees have focused their prevention campaign specifically on National Forest recreationists, commercial firewood sellers, and residential firewood users.

2. Scholarships

- The Council began giving out scholarships in 2004 to students in forest health fields to attend the annual meeting in November and present talks or posters on their research. The scholarships were named in honor of the late Don Dahlsten, professor of forest entomology, UC Berkeley.

Letters of Support

1. Mendocino-Humboldt Redwood Companies - John Anderson, Director of Forest Policy (1-11-21)
2. RCD Santa Monica - Rosi Dagit, Senior Conservation Biologist, Certified Arborist #1084 (3-10-21)
3. UC Extension Orange County - Beatriz Nobua-Behmann, Urban Forestry & Natural Res. Advisor (3-15-21)
4. UC Davis - Dave Rizzo, Professor and Chair of Plant Pathology (3-16-21)

5. CAL FIRE - Glenn Barley, Asst. Region Chief, Southern Region (3-22-21)
6. US Forest Service Region 5 - Randy Moore, Regional Forester (3-23-21)
7. UC Berkeley Cooperative Extension - Tom Scott, Cooperative Ext. Natural Resource Specialist (3-25-21)
8. USFS Pacific Southwest Research - Richard Barhydt, Station Director (3-26-21)
9. CA State Parks - Colorado Desert District - Ray Lennox, District Superintendent (3-29-21)
10. Orange County Fire Authority - Dave Erickson, Wildland Resources Planner, RPF #3116 (3-30-21)
11. Cal Poly SLO - Richard Cobb, Asst. Professor of Forest Health (3-31-21)
12. USDA APHIS - Helene Wright, State Plant Health Director, CA APHIS, PPQ (3-31-21)
13. UC Berkeley - Dr. Matteo Garbelotto, Director Forest Pathology and Mycology Laboratory (3-31-21)
14. Forestry Challenge, Forest Educators Inc. - Diane Dealey Neill, Executive Director (4-1-21)
15. Green Diamond - Elicia Goldworthy, Silviculture Investment Manager (4-15-21)
16. California Forestry Association - Richard Gordon, President and CEO (4-30-21)
17. UC Cooperative Extension Humboldt - Yana Valachovic, Forestry Advisor, County Director Humboldt and Del Norte Counties (5-5-21)
18. National Park Service, Sequoia and Kings Canyon National Parks - Clayton F. Jordan, Superintendent (5-14-21)

Comments from the **Kudoboard**; **What does the California Pest Council Mean to Me?**

<https://www.kudoboard.com/boards/ABJKtILT> (11-2020)

CFPC Publications and Contributions to Publications

- CFPC Web Page <http://caforestpestcouncil.org>
- CFPC Facebook Page <https://www.facebook.com/California-Forest-Pest-Council-1429193983996570/>
- Forest Insect and Disease Training Manual <http://caforestpestcouncil.org/wp-content/uploads/2008/07/CA-Forest-Insect-and-Disease-Training-Manual.pdf>
- Reforestation Practices for Conifers in California is available immediately for free viewing and download at the Forest Vegetation Management Conference web site https://f3839a3d-9851-4def-b527-fb0ceab9a570.filesusr.com/ugd/80da86_0c050def8968415189aa2dbb19fe5222.pdf. A published version will be available in 2021.
- Pest conditions reports from 1960 - current are available at the CFPC website <http://caforestpestcouncil.org/2010/03/california-past-forest-pest-condition-reports/>

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