Minutes of California Forest Pest Council 53rd Annual Meeting, Insect Committee
Heidrick Agricultural Center, Woodland California. November 9, 2004

1:05 P.M. Welcome and Introduction – Christopher Fettig, PSW, Davis, CA.
Committee Chair.

Chris announced that Daniel Stark would not be available to give his talk on Short term trends in tree mortality in response to fire and mechanical treatments at Blodgett forest.
Bryce McPherson would substitute with a talk on diseases in pines.

Old Business: None

New Business: Resolution to hold new business affairs at end of session after program speakers conclude speaking. Resolution passed.

1:15 P.M. 1st speaker was Sheri Smith, USFS-FHP, Susanville, CA. on Status of pinyon pine mortality in northern California.
The main points of the talk were that there is high pinyon pine mortality throughout the western states from the years 2002, 2003, and 2004 in *Pinus monophyla*, and *Pinus edulis*. Causes of mortality due to *Ips confuses* bark beetle, black stain, dwarf mistletoe, and historical drought lasting 5-6 consecutive years. Further research will be conducted throughout the western states. Research will also be expanded into Mexico to look at mortality in Pinus cembroides.

1:25 P.M. 2nd speaker was Laura Merrill, USFS-FHP, Riverside, CA. on Status of pinyon pine mortality in southern California.
Laura mentioned that there are 5 pinyon pine species in the western U.S. She stated that the possible collapse and subsequent large area mortality of Pinyon pine is due to fast growth in wet years, where pinyon ips is not well adapted to attack hydrated tissue. Subsequently, in drought years, attack by Pinyon ips is causing high pinyon stand mortality. Mountain pine beetle and turpentine beetle also attacking pinyon pine.

1:50 P.M. 3rd speaker was Steven Seybold, PSW, Davis, CA. on Studies on the aggregation pheromones of the pinyon ips, *Ips confusus*, in Nevada and the southwestern United States.
Steven said that the aggrigation pheromone used for attraction on pinyon ips was the same aggregation pheromone used for California 5-spined ips: ipsenol, ipsdienol and cis-verbenol which are all derived from α-pinene, a host tree precursor. Discussion on techniques for chemical extraction of volatiles from pinyon ips specimens. Found Ipsenol 90 % (-) isomer and Ipsdienol 95 % (+) isomer in male releases and found cis-verbenol present in both males and females. Found that in GC-EAD analysis, pinyon ips responded to (-) conophthorin and also to (-)/(+) ipsdienol for both male and female of the species. The addition of a high (+) isomer of Ipsdienol caught more pinyon ips when used in conjunction with the commercial bait. The addition of conophthorin to the commercial bait tended to attract more males to the trap. The addition of conophthorin to commercial baits for the California 5-spined ips acted as an interruptant.

2:30 P.M. 15 minute break

2:45 P.M. 4th speaker was Brice McPherson, U.C. Berkeley on The role of scolytid beetles in SOD disease.

Brice talked about watershed monitoring along California coastal counties with the goal to monitor and estimate sudden oak death (SOD) in forest types. Brice has established 2 sites along the coast with 10 plots per site to monitor SOD. Sites contain coastal live oak, tan oak, and black oak. Found that coastal live oak tend to live longer than tan oak or black oak when infected with *Phytopthora ramorum*. Brice said that ambrosia beetles tend to find and bore into infected trees prior to signs of bleeding from infection. Tried spraying SOD infected trees with 0.2% formulation of Permethrin for protection from beetle boring. Found that protection lasted for approximately 2 month before boring began anew. Brice said that there is concern for the shreve oak, a dominant interior oak in Santa Cruz County to the disease.

3:30 P.M. 5th speaker was Nancy Gillette, PSW, Albany, CA. on Efficacy of microencapsulated pheromones for mating disruption of western pine shoot borer, *Eucosma sonomana*.
Nancy said most pine trees are susceptible to the western pine shoot borer in the 5 to 25 year age group for lodge-pole and ponderosa pines. Both aerial and ground applications of microencapsulated pheromones are rated at 85 % effective in reducing infestation rates. MEC, microencapsulation technology, 3M Corp., uses 25 micron thick polymer beads for aerial application and dispersal and can be used with conventional spray technology. Cost per acre price will depend on total acreage sprayed.

4:05 P.M. 6th speaker was Christopher Fettig, PSW, Davis, CA. on Disruption of western pine beetle, *Dendroctonus brevicomis*, response to baited traps with angiosperm volatiles and Verbenone.
Chris talked about the uses of verbenone as an anti-aggrigant against several bark beetle species such as western pine beetle, mountain pine beetle, and southern pine beetle. Chris said the release devises used a 96 % AI verbenone with the verbenone pouch releasing 50 mg./day of verbenone and the bubble cap releasing 8 mg./day of verbenone. Within the study Chris found no mean difference between the control versus the treatments. The problems with the study may be due to 1. Passive release devices may be influenced by abiotic conditions. 2. Movement and concentration of pheromone plume in the landscape.
3. Photoisomerization – ultra-violet light degrades verbenone in the environment. Thought was to try and use the "Art of chemical camouflage" in tree protection. So tried the use of green leaf volatiles. Tried nonhost angiosperm volatiles. Some studies have been performed and seem to be efficacious but disadvantages are must use multiblend compounds, effects on other species unknown, unregistered, and cost . Chris conducted 2 separate experiments during summer of 2004 using bark volatiles (BV) and green leaf volatiles (GLV) into a study condensed into nonhost angiosperm volatiles (NAV). Results showed that wpb baited trap with the addition of low release verbenone (4mg./day) plus NAV was significant and resulted in an 85 % reduction in trap catches from the baited control. The wpb baited trap with the addition of NAV plus conophthorin plus high release verbenone (50mg./day) resulted in an 87 % reduction as did the wpb bait plus NAV plus high release verbenone without the addition of conophthorin.. Thus he was able to eliminate at least one high priced compound from the mix and still show high efficacy.

4:25 P.M. New business:
Election of new chair and secretary for the 2005 year
Unanimous vote for Christopher Fettig to continue as chair for an additional year
Laura Merrill was proposed as a candidate for secretary, proposal was seconded and unanimously voted to be secretary for the new term.

4:30 P.M. End of Insect Committee meeting

Robert Borys
Acting Secretary
2004 Insect Committee Meeting

California Forest Pest Council
Insect and Disease Committees' 2004 Field Meeting
Sequoia National Forest and Giant Sequoia National Monument
August 25, 2002

The 2004 field meeting of the Insect and Disease Committees was held on Sequoia National Forest and Giant Sequoia National Monument on August 25. Thanks to John Pronos (USFS Plant Pathologist, Sonora) and John Wenz (USFS Entomologist, Sonora) for planning and organizing this event…. And to the Forest and Monument Staff who assisted. Approximately 35 participants assembled at the Hot Springs Ranger Station at 9:00 AM. Here, Jim Whitfield (Giant Sequoia National Monument Planner) presented the history, current status and future management of the Monument. After all questions were addressed, the group moved, via vehicle convoy over the mountain to Stop 2, the McNally Burn. Here Tom Simonson (Sequoia National Forest Ecosystems Manager) described the McNally Fire impacts and the planning which led to the current restoration and salvage activities in the burn. Sheri Smith (USFS Forest Health Protection Entomologist from Susanville) described the tree fire survival guidelines her group has been developing over the past few years. A lively discussion followed to clarify in people's minds what defines a dead tree and when a fire damaged tree can be considered dead.

We then backtracked to the 'Western Divide Highway' and the 'Trail of 100 Giants' (Stop 3). After eating our lunches, we walked several hundred feet along the trail and stopped at the giant sequoia tree that President Clinton dedicated when the Monument was established. We were not able to walk further because the trail was closed while crews fell numerous hazard trees. At the 'Clinton Tree', Tom Burns (Resource Officer for both Tule River and Hot Springs Ranger Districts) presented the history of the Trail and the recent drought connected mortality that resulted in closing the Trail while the current salvage operations were conducted. Then John Wenz and John Pronos described the insects and diseases that are active on the site.

Finally, the group convoyed north along the 'Western Divide Highway' to Quaking Aspen Campground amphitheatre (Stop 4). First George Powell (Culturist, Tule River/Hot Springs Ranger District) described the dwarf mistletoe suppression activities in the area. Then John Wenz talked about the Douglas-fir tussock moth and the most recent outbreak in the area. Finally, John Pronos discussed the 23-year trend of ozone injury on the Sequoia National Forest. John Dale (USFS Entomologist, Vallejo) ended the day by presenting an "unofficial award" to John Pronos. Bill Woodruff (Chair, Disease Committee) officially closed the meeting by thanking the speakers, the Forest and Monument staff, John Pronos, John Wenz, and all participants.