

Summary Notes

Golden Spotted Oak Borer (GSOB) – Tom Coleman, USFS (presentation)

www.gsob.org

- Northern edge of infestation is La Jolla, Los Coyotes and Lake Henshaw
- Introduced into California from Arizona's Coronado Forest
- GSOB favors large diameter red oaks
- Larva feed from July to November
- Can give traps to tribes if they need them
- What kills trees is years of repeated feeding
- Only have data to the border of Mexico and don't currently have a good contact in Northern Baja to see possible effects of GSOB further south.
- GSOB USFS Insect and Disease leaflet coming out in 2014-2015
- Question: Are there residues of systemic pesticides in the mast of oaks? Answer: There haven't been good mast years to test.
- Developing IPM Program – need to include monitoring, tree removal and specific plans for preventive treatments.
- Once populations build, they move to other plants. Brood trees have high population levels and removal of brood trees may reduce the population.
- USFS can assist with funding for suppression, removal and GSOB evaluation.

Polyphagous Shot Hole Borer – Tom Coleman (presentation)

- Bores into tree to lay eggs and feeds on the fungus it brings with it. Not always the same fungal species.
- Current borer species may be different from the Tea Shot Hole Borer. The infestation in greater Los Angeles area may be from Vietnam/Asia. The one found in San Diego, Sycuan is believed to be from Taiwan.
- The borer may produce 2-4 generations per year.
- Fungus clogs the water carrying vessels in the tree.
- Requires many attacks to kill the tree
- The borer feeds on several host plants and may attack any size tree.
- Box elder is most susceptible, second is red willow, then castor bean, California sycamore, Fremont cottonwood, and white alder.
- Have not seen it kill coast live oak or California walnut.
- Management
 - o Removal by burning affected trees; Tarping; Chipping; Insecticide options; Fungicide options; Biological control of fungus and beetle
- No effective lure found for the insect
- Best surveys have been ground surveys
- Chipping may be effective in reducing population
- Question: Any interaction between drought and attacks? Answer: Not known.
- If trees are not drought-stressed there may be an increase in infestations due to increased moisture. Drought may actually be helping limit the infestation.

La Jolla Reservation

- Spread has been through oak firewood
- Using education to educate the campground staff and campers
- Information on invasive plants shared at the annual Earth Day event.
- Tried a firewood exchange program but it wasn't successful.
- Notice of oak firewood ban is on the tribe's website.
- Tribe is working on an Integrated Resource Management Plan that will cover GSOB.
- There is a heavy die-off of Engelmann oaks at La Jolla due to drought.
- The mast production in the oaks varies. Some say they begin producing in 10 years, other say 30 years.

Overall note: People shouldn't be moving any firewood – buy and burn local wood.

Weeds - Chris McDonald, UC Cooperative Extension (UCCE) (presentation) – cimcdonald@ucanr.edu

- In Nevada, \$6-12 M in recreation lost because of weeds.
- UCCEs can assist with vegetation management plans and developing best management practices.
- Best technique – early detection and rapid response – saves money.
- Cleaning vehicles is effective. If low on water, then use air pressure and scrub brushes.
- Invasive weeds:
 - o Pampas grasses
 - o Giant Cane (*Arundo donax*) – invading riparian areas across the region, in canyons, creeks – can grow 1 foot/day.
 - o Fennel – roadside weed
 - o Poison Hemlock (*Conium maculatum*)
 - o *Tamarix ramosissima*
 - o English Ivy
 - o Perennial pepperweed (*Lepidium latifolium*) – found in riparian areas.
 - o Sahara mustard (*Brassica tournefortii*) – coast to the desert – it has prickly leaves. It crowds out native grasses and wildflowers – see evidence of it in Borrego Springs. Don't know how well it will invade the other areas due to the drought.
 - o Tree of heaven (*Ailanthus altissima*)
 - o Yellow star thistle
 - o Malta star thistle – grows to 3 feet in height
 - o Purple veldt grass – purple tint to seeds and florets

Feral Pigs – Dennis Orthmeyer, APHIS, Sacramento (presentation)

- APHIS assists with protecting property, natural resources, endangered species and people.
- Feral pigs are a walking zoonotic mess! Feral pigs spread 25 diseases that can transfer to people.
- In 2010, feral swine were present in 57 of 58 counties in California (most, maybe all counties)
- Feral pigs are invasive and very damaging species, an “A” rated pest by California Department of Food and Agriculture
- \$1.5M spent on feral swine control in CA
- They are called “ecological assassins” – they impact rare and endangered species
- They are also a “bio-terroristic threat” – spread viral pathogens.
- Pigs respond to pressure
 - o Be careful where you pressure them to move to new areas. Don't want them in sacred sites, burial grounds, cemeteries, etc.

- Regulatory authority for pigs in California?
 - o CA Department of Food and Agriculture
 - o California Department of Fish and Wildlife
 - o Tribes
 - o US Food Safety and Inspection Service
- APHIS and USDA went to Congress to ask for funds to control pigs.
 - o Target population reductions
 - o Minimize disease threats
- San Diego County Project – 16 members
 - o County, cities, federal, private, APHIS, tribes, State, NGOs
 - o Tribal MOUs – Wildlife Service talks with tribe on how to control pigs on tribal lands
- Question: Can tribes still become a cooperating agency on the environmental assessment?
Answer: Yes, when it goes to the public.

Other Pest Concerns

- Climate change – worldwide problem
- See hydraulic failure with drought
- Soil depth and quality is key to healthy plants
- Forest can go from carbon sinks to sources if we start to see die-off.

[Notes from the flip charts]

Action Items

- Run a CAP and Trade Workshop
- Build partnerships to make IPM work
- Expand Feral Pig model partnership to other pests
- Expand tribal nurseries for native plants
 - o Rincon and La Jolla have nurseries
 - o USFS – Tribal Nursery Guide – available on line from USFS
<http://www.rngr.net/publications/tribal-nursery-manual>
 - o Share information on planting techniques – example: California Fish & Wildlife program on Engelmann Oaks
 - o Share programs on collecting local plants for local planting and restoration
- Capture genetics of important plants
 - o National seed banking – Rancho Santa Ana Botanical Garden has a seed storage facility
 - o Conservation may be needed to save oaks and sycamores
 - o Collect acorns and pinyon pine seeds for genetic banking
- Tribes need to do develop land management plans
 - o 50% of the Tribes have one.

Potential Partnership and Funding Sources

The best way to maximize projects is to share resources. Below are some resources and the potential projects that can be funded.

- CAL FIRE (Southern California) - Can work with Tribes on small prescribed burns to help reduce catastrophic fires
- Forest Service – can assist with designing fuel reduction projects
- BIA
 - o Can fund forestry/chaparral projects
 - o Has a program to fund development of Integrated Resource Management Plans
 - o Funding for Noxious Weed management
- Farm Bill – can fund projects
- NRCS - Tribal EQIP Incentives Program (non-regulatory)
 - o Non-industrial forest projects
 - o Tribal range-land management projects
 - o Poly-farming for permanent and seasonal crops
 - o Culturally significant plants projects
 - o Habitat for sensitive species projects
- US Fish and Wildlife Service funding for:
 - o Wildlife management plans
 - o Tribal Wildlife grant for Habitat Conservation Planning and Endangered Species Act projects
 - o Tribes can enter safe harbor agreements on projects affecting habitat for sensitive species which will not stop the development because of endangered species concerns.
- CDFA (California Department of Food and Agriculture) – Specialty Food Grant
- Western IPM Center
 - o Work groups
 - o Small grants
 - o Favorable towards projects that utilize more than one state/tribe.
- Expand the Inter-Governmental work group on Feral Pigs to other issues (The southern California collaborative work group dealing with pigs.)
- California Naturalist
 - o Tribes interested in holding trainings?
 - o Can adapt materials for tribal specific resources
 - o Contact Sabrina Drill from UCCE Ventura for more information.

Obstacles

- BIA does not currently have a Forester.
- Drought impacts
- Less acorn production/germination with Engelmann oaks
- Be cautious when using outside nurseries for replacement plants, they can carry pathogens that you don't want in your restoration project.

Management concerns

- No pesticides to be used around basketry plants (deer grass, *Juncus*, etc). Cal Trans has stopped spraying these in collection areas.
- Goats can be a good alternatives to pesticide use
- Implement more prescribed burning – need to list out benefits and the threats
 - o Could do localized, specific burns
 - o Need to look on a landscape level in land use planning
 - o Pros: Fuels reduction

- Cons: Fires escaping; Poor air quality
 - Permits for burning
 - Limited staffing and internal resources
 - Endangered species restrictions
- Rivers are important
- More propagating and planting native oaks and pines

Poster: What's "Eating" Your Forest? What's "Eating" You?

Damaging Southern California forest diseases

- Foamy Bark Canker
- Heterobasidial root disease
- Mistletoe

Damaging Southern California Weeds

- Tree of Heaven, continued removal
- Castor Bean
- *Arundo donax*

Vinca and other vines Other Southern California Forest Health Concerns

- Restoration techniques
- Spraying along Hwy 76 from Pauma to Lake Henshaw
- Oaks brown from ground to 6' height but weeds still grow

Next Steps

- Continue these meetings to cover specific targeted areas
- Research and collect pesticide information for food plants – How much uptake of the chemicals occurs under various conditions?
- What is the best way for us to communicate?
 - In person?
 - Via website? (www.wrpmc.usdavis.edu)
 - Mailing list? (Work Group is developing one now)
- Learn more on what UCCEs San Diego/Ventura is doing about PSHB.