

Synthesis: Hot Deserts



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Workshop I – Hot Deserts

(Karen Prentiss)

- Post-fire desired point is difficult to agree upon
- There is a poor understanding of:
 - Natural range of variation in fire regime characteristics
 - Fire effects on plant communities and systems
- Difficult to predict system response to management techniques (and ppt)
- Successful post-fire management requires collaboration (technical and political)
- A regional perspective is necessary
- Staff needed during first year of fire rehab; need consistency
- Long-term monitoring is critical



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(Santee Dingman)

- Fire Management Plans can be useful tools
 - Establish goals and objectives
 - Identify where and how fire management activities promote native vs. invasive species
 - Aid in development of operational guidelines (specific to local needs)
- Knowledge of invasive species conditions can help fire managers respond proactively
- Research is needed on relationships between fire and invasive plants
- Post-fire rehabilitation efforts should include invasive species prevention
- Lessons learned should be shared across jurisdictions; annually update management plans



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(Julio Betancourt)

- Fire labels (i.e., 'brush fires') mislead the public
- Fire risks (and costs) are distributed unevenly
- Increased fire risks will change how communities grow (viewsheds will become more costly to maintain; may dictate future development)
- Need to improve stakeholder engagement (public and private), including insurance companies
- Treatment prioritization of WUI lands should be based on high resource value areas
- Spend a whole lot now to save a whole lot later



Workshop I – Hot Deserts (Travis Bean)

- Economic impacts greatly exceed the costs of control
- Funding is limited and inconsistent (unsustainable if using grants)
- Complex jurisdictional issues
- Codes and ordinances need to be revised to address target species
- Conservation plans do not include resources for managing lands they advocate purchasing
- HOA open space rules need to be revised to allow for active management (instead of mandating non-disturbance)



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- Critical Issues
 - Coordination
 - Prioritization
 - Public Engagement
 - Fuels Management
 - Rehabilitation
 - Policy
 - Monitoring
 - Funding
 - Research



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- Coordination

- Better coordination across all aspects of the issue (research, rehab, fire mgmt, funding, Washington DC, etc.)
- Cooperative efforts should include multiple jurisdictions and international partners (where appropriate)
- Strategize regionally and coordinate data sharing, using existing tools (e.g. NASA's invasive species forecasting system)
- Regional outlooks and assessments are needed
- Identify and engage stakeholders early
- Utilize existing cross-jurisdictional weed groups to leverage funds (CWMAs, NRCDs, etc.)
- Share and update lessons learned
- Centralized place for data sharing

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- Prioritization
 - Action plans are needed; identification of goals, objectives and performance metrics (start with an end in mind)
 - Be willing to adapt to changing circumstances (adaptive management)
 - Acknowledge that some areas are unsaveable; scarce resources should be spent where they will make a difference
 - Public input can help in determining priorities (and assist in obtaining additional resources)
 - Dovetail economics and ecology to determine resource allocation
 - Utilize green stripping strategically (to aid in protecting high resource value areas)
 - Account for high natural values when prioritizing, and strive to maintain healthy rangeland conditions
 - Prioritize: risks, ecological values, societal values, research

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- Public Engagement
 - Need a champion or mascot (Burnie tortoise, or Scorchy sage grouse)
 - Utilize existing programs to encourage public involvement (Cooperative Ext. programs, Firewise, Adopt-a-Highway, etc.)
 - Utilize existing youth service programs (AmeriCorps, etc.)
 - Develop creative ways for everyone to participate (K-12, adults, retirees, pets, Western Governor's Assn., etc.)
 - Demonstrate success and publicize it
 - Dedicated volunteer coordinator at land management agencies
 - Motivate land owners through taxes and fines
 - Reward volunteers for participation (medal? Free meal at local restaurant?)
 - BMPs for small scale action should be available online (toolkit for volunteers, scout groups, HOAs, etc.)

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- Fuels Management
 - Don't dismiss potential of other invasives when focused on target species
 - Newly developed areas (WUI) should receive high level of public outreach
 - Target high resource value areas
 - Fuel continuity should be taken into account when planning; Green stripping can be useful to reduce fire spread
 - Demonstrate successful treatments and publicize to all groups
 - Bio-control agents should be considered
 - Implement preventative action between incidents (vehicle cleaning, etc.)
 - Explore where grazing can be utilized
 - Utilize fuel modeling for invasive species
 - Monitor all fuels management treatments for effectiveness and share lessons learned

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- Rehabilitation
 - More research is needed: system functions, techniques, target species, native species, whether rehab is viable or not
 - Expectations should be adjusted in view of climate change
 - Sustained monitoring is critical to ascertain treatment effectiveness and should include soil assessments
 - BMPs may include doing nothing
 - Seed availability is a limiting factor
 - increase native seed collection
 - develop economic sustainability in seed markets
 - develop infrastructure for long-term seed storage
 - Sustain funding for rehabilitation efforts in deserts
 - Utilize local knowledge

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- Policy
 - Complete a cost-benefit analysis to gain support of policy makers
 - Review and modify existing policies that hinder treatment and future planning (ex. ES&R)
 - Promote invasive species management as a public works project
 - Experts should be involved in hiring process, not just HR review, to ensure a net knowledge gain
 - Local weeds lists should be used to expand upon state level lists

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- Monitoring
 - Use technology to guide monitoring efforts
 - Identification of bench marks and desired landscapes (goals) prior to initiating monitoring
 - Sustained monitoring over time is critical (>3yrs)
 - Monitor both burned and unburned areas
 - Use monitoring to inform other aspects of invasive species management (policy, treatment, future rehabilitation, etc.)
 - Synthesize and share lessons learned through a central clearinghouse

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- Funding
 - Consistent and long-term funding is required for all aspects of invasive species management (mapping, monitoring, treatment, and public engagement)
 - Invest resources into a clearinghouse
 - Demonstrate cost-effectiveness (and share lessons learned)
 - Increase taxes and fines through enforced ordinances
 - Provide information and support to financial decision makers
 - Cost-benefit analysis should incorporate non-linear growth/costs (cost of doing something today vs. later)
 - Develop a template (successful funding mechanisms) for small community based groups
 - Regionally prioritize target areas for better funding allocation

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- Research
 - Biological envelopes of species, taking into account climate change variables
 - Effects of herbicides applied across large scales for long periods of time
 - Post-fire dynamics and ecosystem processes that have implications for rehabilitation
 - Identification of species that can be used for rehabilitation (native and non-native)
 - Seeding techniques (effectiveness and cost)
 - Control techniques
 - Fuel modeling for invasive species

Potential Successful Strategies

- Regional Workshops
 - Held regularly in geographic areas
 - Focus on invasive species-fire issues
 - Complete regional assessments
 - Share lessons learned
 - Improve networks



Potential Successful Strategies

- Inter-agency Invasive Species Teams
 - Based at NIFC and regionally (benefits NIFC because they can be proactive about fuel management prior to incidents – cutting costs of large incidents)
 - Dispatched to fire incidents with fire responders
 - Experts in invasive species, but can capitalize on available fire resources (PIO, etc.)
 - Allows for network development within and across teams (can share lessons learned)
 - Clearinghouse for invasive species data (all aspects)
 - Improves awareness within fire community of dispersal and weed management issues
 - Public outreach could be streamlined and shared across jurisdictions
 - Volunteer coordinators (AmeriCorp interns) could be dispatched to high priority areas to aid in public engagement activities
 - May have better access to policy makers with invasive species issues

Thank You!

