General Meeting Summary 7/17/2024, via Zoom and in-person at the Amador Ranger Station

MEETING BRIEF

- Meeting facilitator: Chuck Loffland
- Presentation by Gavin Jones, USFS Research Ecologist, Rocky Mountain Research Station- *Megafire* effects on spotted owls: elucidation of a growing threat and a response to Hanson, et al.
- Roundtable
- July 2024 SCALE Meeting ACCG update
- MAC Phase 1 and Phase 2 update
- Work Group updates

ACTION ITEMS

| Actions | Responsible Parties |
|---|---------------------|
| Post agenda and last month's general meeting summary as final to the website. | Layhee, Sarkis |
| Attend and provide the ACCG update at the July SCALE meeting. | Layhee |
| Provide ACCG with links to papers mentioned during Gavin's presentation, discussion | Layhee |

MEETING OPENING

Draft agenda and last month's meeting summary approved without modification. Administrator will post final version to the ACCG website.

GUEST PRESENTATION

Presentation by Gavin Jones, USFS Research Ecologist, Rocky Mountain Research Station- *Megafire effects on spotted owls: elucidation of a growing threat and a response to Hanson, et al.*

Dr. Jones is a Research Ecologist with the USFS Rocky Mountain Research Station since 2020, and also currently an adjunct professor at the University of New Mexico. He received his PhD in Wildlife Ecology from University of Wisconsin-Madison and did his Postdoc at the University of Florida. His research is focused wildlife distribution, dynamics, and responses to disturbances and climate change to inform land management. This includes (1) studying species habitat ecology, occurrence, and space use across environmental gradients, (2) evaluating wildlife responses to fire, forest restoration activities, and associated trade-offs, and (3) engaging in co-production of knowledge to narrow the gap between science and management.

Presentation began with an overview of the sequence of papers that led to Gavin and coauthors publishing the rebuttal paper (<u>Jones et al., 2019</u>) to <u>Hanson et al., 2018</u> including the major conclusions of the <u>Jones et al., 2016</u>. paper about King Fire that burned within demographic study area for CSO: 1) Higher proportion of site burned at high severity, the higher probability of extinction; 2) Colonization

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probability highest in intermediately burned sites; 3) Occupancy probability highest post fire in unburned and <50% high severity sites opposed to >50% high-severity sites; 4) Proportion of sites occurred over time (1993-2015) declining; 5) Rate of change in occupancy declining over time; and 6) Fire vs salvage logging effect of extinction probability- salvage logging didn't explain extinction probability

Then went on to describe the main conclusions of the Showed Hanson et al. 2018 paper, Effects of post-fire logging on CSO occupancy, including that there was a significant adverse effect of post fire logging and no effect of high-severity fire. The Jones et al., 2019 rebuttal paper concluded that the Hanson et al., 2018 paper excluded the most severely burned CSO sites from their analysis.

Key discussion topics post-presentation:

- Is there additional research into now that we know that 30% of forest land is not longer forest (according to FIA) and implications of that for the owl? It was noted that at the time of burning, the King Fire was a large fire, but it's been dwarfed since then. At the time of publishing the paper, it was an open question, but now it's clear that this is a bioregional scale problem for the owl. There is a published paper just last year looking at recent mega drought and wildfire in Southern SN and how those impacted spotted owl and fisher habitat, including that between 2011-2021 there was an estimated loss of 80% of mature/old growth of conifer forest in the Southern SN- good nesting, denning habitat. Also looked at general conifer habitat loss was 50%. Increased pace and scale in and outside spotted owl habitat are beneficial in reducing potential loss to wildfire and drought.
- It was noted that proximity is a key factor when talking about colonization post-fire- owls will move to the closest (loyalty to area) next available suitable area.
- ACCG lessons learned is that it's important to follow best available science to direct development of projects, like the UMRWA-USFS MAC project.
- High-severity patch size was also discussed, including that the center of large high severity burn patch are essentially deserts for the owl and other species like the black-backed woodpecker. Gavin and colleagues research has shown that owls use high severity burn patches for foraging, but as Gavin showed in his Figure 4 map that yes, they use the high severity burn edge but not in a very large high-severity patch (Jones et al., 2020). Research has demonstrated that adult black-backed woodpeckers predominately use the high severity burn edge but not in a very large high-severity patches (Stillman et al 2018, Figure 1).
- Meta-analysis underway approximately 1,200 owl sites (or territories) affected by fire over last 35-40 years, including sites within the Caldor Fire footprint. Both occupancy (e.g., ARUs) and survey data are being used in the meta-analysis.
- Definition of high-severity fire: define high-severity fire are derived from Landsat pre and post imagery burn index. High severity thresholds are >75% canopy or basal area mortality, or sometimes >90% within a 30-m pixel.
- A question about post-fire emissions from standing dead and dead and down. It was recommended to talk with or research work from Matt Hertow (U of New Mexico) does work on carbon flux and storage in forests, and Leroy Westerling (UC Merced) might be doing research on the topic.

Citations:

General Meeting Summary 7/17/2024, via Zoom and in-person at the Amador Ranger Station

- Hanson, C. T., Bond, M. L., & Lee, D. E. (2018). Effects of post-fire logging on California spotted owl occupancy. Nature Conservation, 24, 93-105.
- Jones, G. M., Gutiérrez, R. J., Tempel, D. J., Whitmore, S. A., Berigan, W. J., & Peery, M. Z. (2016). Megafires: an emerging threat to old-forest species. *Frontiers in Ecology and the Environment*, 14(6), 300-306.
- Jones, G. M., Gutiérrez, R. J., Kramer, H. A., Tempel, D. J., Berigan, W. J., Whitmore, S. A., & Peery, M. Z. (2019). Megafire effects on spotted owls: elucidation of a growing threat and a response to Hanson et al. (2018). *Nature Conservation*, *37*, 31-51.
- Jones, G. M., Kramer, H. A., Whitmore, S. A., Berigan, W. J., Tempel, D. J., Wood, C. M., ... & Peery, M. Z. (2020). Habitat selection by spotted owls after a megafire reflects their adaptation to historical frequent-fire regimes. *Landscape Ecology*, 35, 1199-1213.
- Stillman, A. N., Siegel, R. B., Wilkerson, R. L., Johnson, M., & Tingley, M. W. (2019). Age-dependent habitat
 relationships of a burned forest specialist emphasise the role of pyrodiversity in fire management. *Journal of Applied Ecology*, 56(4), 880-890.

ROUNDTABLE

- Allison- district hazard tree sales occurring along Lake Alpine and Spicer Road
- Chuck L.- fire restrictions occurring now, cooperative partnership removing hazard trees from Bear River, Silver Lake areas kicking off later this summer. Had a few lightning fire strikes, fuels are dry right now.
- Steve B- August 21st meeting Dr. Knapp will be a really interesting presentation; FS has got there the freight grant incentive program including \$25 million this year and then also next year, very competitive but an opportunity nonetheless. Piloted last summer/fall for just the biomass and went really well.

SCALE MEETING UPDATE

Briefly discussed that Megan will attend the Friday session of the SCALE meeting in Sacramento at the end of the month to provide the brief ACCG and UMRWA update.

MAC PROJECT UPDATE

- Phase 1 Update: RFPs for Phase 1 Arbor (3,133 acres) and Birch (1,595 acres) have closed and internal review is currently underway. Contracts will be awarded at the Aug 16th UMRWA Board meeting. Expect these contracts to be executed soon after and operations expected to begin in early Sept. Phase 1 88 (Burnbot) project (2,295 acres) approximately 500 acres completed this year. Burbot has also brought on subcontractors for both the mechanical and hand work to ensure they stay on schedule. There will be a field tour with Blue Forest and others in the Phase 1 88 (Burnbot) Project area in August. UMRWA will be modifying their grant application to WCB to reduce the total cost down from \$7M to about \$4M to address limited funding available from WCB, So, the team is working currently on developing that revised project area, acreage TBD. Submit by Sept 3 and go before board in Nov, if awarded it will probably be in Dec. 2024.
- Phase 2 Update:
 - Official name change to the Mokelumne Amador Calaveras Forest Health and Resilience Project, MAC.

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- The NOI is still in review at the Washington Office. And we are expecting approval from the WO in August and public scoping period to follow.
- Our next virtual Technical Advisory Group (TAG) meeting will be on July 25th 9-12 to review
 the results of our modeling effort with the Planscape team. TAG members you should have a
 calendar invite to that already.
- Funding
 - UMRWA executed a grant with SNC for Phase 2 planning for just over \$700K.
 - UMRWA also recently executed a grant with SNC through the RFFCP Round 3 bring on the FPP Monitoring Coordinator to develop the FPP Monitoring Strategy, funding to bring on the MAC Tribal Liaison and also to fund the ACCG Administrator for the next year to year and half.
 - And As part of the UMRWA's wildlife Conservation Board implementation grant for Phase 1 Cedar project mentioned earlier, we did ask for a portion (\$400K) of that for Phase 2 planning.

WORK GROUP UPDATES

- Admin work group met last on July 8th via Zoom. The group approved this month's general meting agenda. They also conducted an interview with consultants for Mariposa RCD which is funding a research project on the opportunities to improve woody feedstock aggregation, economic development, wildfire risk reduction, and forest health in the Central Sierra region. And currently conducting a financial analysis of the use of a Joint Powers Authority (JPA) approach to advance these objectives. The purpose of the interview with the ACCG Admin WG was to better understand the organizational structure and framework of the MOA; collaboration between federal, state, local, and private individuals; performing forest health and resilience work in rural areas; and leveraging funding from multiple organizations.
- Planning work group did not have a June meeting, instead the work group hosted a hybrid MAC
 Project Stakeholder meeting. The work group will meet next on July 24th and continue discussion on potential herbicides uses in the MAC project.
- Forest Plan Amendments Ad Hoc met last on July 8th via Zoom. The group met only briefly do to scheduling conflicts for members and also to give Ad Hoc members more time to review the new FS Region direction on project-specific spotted owl-related forest plan amendments in preparation for their August Ad Hoc meeting.
- Monitoring Work Group did not meet in July. No update.

MEETING CLOSE

Next general meeting: August 21st hybrid via Zoom and in person at the Calaveras RD office in Hathaway Pines.

MEETING PARTICIPANTS

| Count | Name | Affiliation |
|-------|--------------|--|
| 1 | Megan Layhee | Acting ACCG Administrator, UMRWA (in-person) |
| 2 | John Buckley | CSERC (in-person) |

Amador-Calaveras Consensus Group (ACCG) General Meeting Summary 7/17/2024, via Zoom and in-person at the Amador Ranger Station

| 3 | Stan Dodson | CSERC |
|----|------------------|---|
| 4 | Amanda Watson | Amador RDC, FSC |
| 5 | Michael Pickard | SNC (in-person) |
| 6 | Rich Farrington | UMRWA Board, AWA |
| 7 | Tom Hofstra | CSERC (in-person) |
| 8 | Chuck Loffland | USFS, ENF, Amador RD (in-person), meeting facilitator |
| 9 | Steve Brink | CFA (in-person) |
| 10 | Char Sarkis | Incoming ACCG Administrator (in-person) |
| 11 | Allison Stevenot | USFS, STF, Calaveras RD (in-person) |
| 12 | Gavin Jones | USFS, Rocky Mountain Research Station |
| 13 | Jeff Mabe | USFS, ENF |
| 14 | Zac Croyle | USFS, STF, Calaveras RD |
| 15 | Helen Loffland | IBP |