

	<b>Monthly Meeting</b>	<b>Wildlife Working Team</b>
Created by: Terra Lenihan	<i>Meeting Minutes</i>	Thursday, May 29, 2014

<b>Meeting Name</b>	Monthly Meeting #19
<b>Meeting Date</b>	Thursday May 29, 2014
<b>Meeting Time</b>	10:00 AM - 3:00 PM
<b>Venue</b>	USFS-RO
<b>Attendees</b>	Terra Lenihan (Beh Consulting), Rick Truex (US Forest Service), Casey Cooley (Colorado Parks and Wildlife), Lynne Deibel (US Forest Service, ARP), Steve Germaine (USGS), Janelle Vallederes (US Forest Service, PSICC), Sarah Parks (USFS-PSICC), Jenny Briggs (USGS)

**Meeting Notes**

- 1) **Welcome** – Group welcomed Sarah Parks, who is working with Janelle. Group did an ice breaker.
- 2) **Update on RMBO** – Agreement with RMBO has been signed. They are on schedule and ramping up with potential to include Abert’s. \$137K total agreement. This effort is probably the most intense wildlife monitoring effort across 2 regions in the past 10 years. Starting up next week most likely. They can’t guarantee 120 sites, but that’s their goal. They set it up for the AR and PSICC and all is in the CFLRP strata. Hope this will be a good example of collaborative monitoring approaches. Lynne said one of roles of this team is that we keep this alive within our respective agencies. Steve asked if thinning operations are on track this year? Lynne thinks so, with flooding also a big issue. Rick explained our approach to do every other year, agreed by Landscape Restoration (LR) team. LR looking at developing long term vision. Unknown if Wildlife team will be funded on off years. It will be nice to get Abert’s on the on years. We want to revisit today ways to pilot approaches this summer that won’t be burdensome and how to integrate with the avian monitoring. Two approaches are feeding sign surveys and camera based surveys. By end of day our goal is to have a plan.
- 3) **SCAB Sampling**
  1. Rick, Lynne and Casey had a recent call about these approaches. Rick described a sampling unit, 1 sq kilometer. There are 16 avian sites that RMBO will be surveying, with 6 minute auditory survey visual and auditory. They get precise recordings of red squirrels because they are loud. Abert’s are not loud. How do we integrate monitoring abert’s? RMBO could do some feeding sign survey and deploying cameras to monitor. Can’t interfere/compromise with the avian monitoring. Both surveys have limitations.
    - **Camera surveys** provide verifiable record. Also capture other tier 2 animals. Casey explained this approach includes putting a camera in middle of sq kilometer grade. Put a set lure to attract the wildlife. It’s there for 4-8 weeks or longer. Done by CPW. Go through photos to measure true occupancy of the field of view. They’ve been doing in lodgepole and spruce fir and gotten some good detection. We would mimic that approach in the CFLRP boundaries. They’re also doing bird monitoring using RMBO’s bird protocol. This would give us occupancy of abert’s squirrel. Steve asked what are detection rates vs other benchmarks? Also since they’re surveying a point of space what are

we comfortable with our area of inference? Rick said our area of inference you could suggest it is a home range size of the target species. It's debatable, it hasn't been done with abert's, but it works well with other squirrels in other parts of the country. Casey said there's some evidence for snowshoe hare and lynx, and a suite of species that can be looked at. There's a CSU grad student, part of Matt Aldridge's work looking at this type of thing with cameras. We'd like to test it and see if it works. They are non-invasive and wide spread in use. Trickier in the analysis. With the avian protocol we're getting true occupancy and density of 7 of 8 species. If we do feeding sign we're getting that too. With cameras we need to decide if we can get perhaps less absolute data. Rick is fan of camera technique, can be good for PR. With the Roundtable with an update the pictures could be helpful and prove interesting. These cameras are expensive. Casey said the ones recommended for this is a professional camera that is a Reconex camera ~\$550, Jake has used these with success. Cost of batteries, locks, cases, etc also play into the cost. Rick thought for one set \$250-700 depending on what you want. Lower end = more flaws, probably less functionality. Since we will use these over the long term you should go with the better models. The Reconex are the gold standard. Casey recently ordered 9 of these with the CPW with this project in mind. Rick thought if the group could round up some of these within their agencies it would help. The deployment and capturing the data is not that difficult but the analyzing will be more cumbersome. Most members of the team have offered to go out and deploy these. Jake (researcher at CPW)

- Rick showed us Jake Ivan's presentation on mammals for lynx monitoring. Showed us the cameras pointing at target trees. Cameras detect heat and motion and record of verifiability. Camera is ~ 4 meters between trees from camera to tree with the lure. The pro is that you get your species verified. Takes ~ 30 minutes to set up. Camera set during avian survey and retrieved ~8 weeks later. Continuous device in 1 hour intervals. Going to produce thousands of good quality photos. Showed the results of red squirrel impact on pine beetle as well as snowshoe hare. Data analysis and management is going to be a big deal. Can we work with Jake on that?
- Rick suggested we do all in treated cells. Casey thinks if we are only doing abert's we will get limited info. He asked how is treatment impacting tree squirrels? Although we're looking at abert's we shouldn't hold strict and true to what we're monitoring. Rick said we're getting good estimates for pine squirrel through RMBO. Do we focus on ponderosa pine? Casey thought if we're going to deploy cameras this summer for pilot we need to do it soon. Casey motions we try it as a pilot in ponderosa pine. Lynne brought up if they are ponderosa pine then we should be sampling in that area. Rick said then it's not spatially balanced. Janelle agreed we could do spatially balanced within ponderosa pine. Casey asked if Janelle could pull out all the ponderosa pine. Sarah can help with that. Rick proposed we deploy as many cameras as we can that have at least 33% in ponderosa pine for 4 weeks – 16 cameras total – then move them. Balanced between treated and untreated. In a treated cell it would be in the center. Casey asked of these treated areas, they aren't some going to be treated for say 5 years. How does that impact what we're doing? Janelle said we'll have some before and after. Janelle brought up if only 30% of treated cell is ponderosa, then the middle may be off. Casey asked what are "treated" definition was? Janelle thinks it was 50. Is that a good start – 50 has to be classified as ponderosa pine. Group agreed we're doing this in some manner and we'll work out the details. Casey is hoping to Jake to the field with us one day. Then we divide and conquer. Or one of us can go with them. Steve brought up logistics and training. Casey thought he'd use Jake's settings.
- Casey suggested that in the collaborative spirit, have other groups pitch in with our monitoring.

- **Feeding sign survey** provides evidence that animal has been there. Rick proposed the suggestion that RMBO do it this way simultaneously during the avian survey:
  - 1) 25 meter concentric circle, max 6 minute search time. Provide photo guides.
  - 2) Repeat if no sign. Provides occupancy.
  - 3) Max 80 minute time added to overall grid cell.
  - 4) Sample every other point.
  - 5) Record sign as Yes, No (if yes, observer would say if it is a lot, or not much sign)
  - 6) Limit to cells selected for camera sites?

Steve wondered about the timeframe. Jenny said 5-10 minutes to search an X meter size? He's concerned about 6 minutes to do a 50 meter area. Will we get a lot of errors? Rick replied for the pilot, with this approach, there are no type 1 or 2 errors because they get modeled. Steve wonders what RMBOs advice on how many points need to be hit? And how much time that takes? Rick thought 30 minutes before sunrise, for 6 hours, they are done by 10-10:30. They would have to do it while they are doing the avian surveying. Casey brought up that they are doing veg as well. Casey asked about the data – how will we know which cells they got? Rick says he believes we will get the raw data so we will know that. Casey wondered if we're compromising their bird data because we're asking them to monitor too much. Steve thought if we could have a sign survey right in the middle of the 1 kilometer square and RMBO (in the middle of 6, 7, 10, and 11). Janelle asked if we would do it the same as the camera surveys? Only when there's 50% ponderosa pine? Lynne brought up that RMBO is a well oiled machine and so if our process is not efficient than they will let us know. Steve brought up there's no monetary incentive to say we can do the squirrel survey. Rick thinks they are excited for it. Casey asked what is the minimum # of points to be sampled that we are comfortable with? Rick thought that is TBD and that is why it's a pilot.

- Steve talked about having a research program help us with some of this. Casey wondered if Jake would have interest in this data set?

- 4) **Roadshow** – Tier 2 opportunities. Lynne said we should start with our own LR team. They would be a good audience to start with. What's our goal with these species? Some were technical difficulties so that's why they ended up on Tier 2. In our outline we say in our report we would make recommendations for each of these. Janelle said there's research that they respond to treatment. May see a quicker response. Could we recommend that a carabid beetle research into the UMC project?
1. Beetles – Jenny brought up the etymology students at CSU to do some of those. Capture and do the analysis. Incorporate into UMC project?
  2. Flammulated owls – ask Brian Linkhart to work with us – he has 20 or so years of research with flams. Manitou experimental forest is in the UMC planning area so how could we tap into this? His work is in demographics primarily. Rick suggested it's worth pursuing a short summary to the CFLRP and the FS involving stuff outside and inside Manitou – set something up with Paula and Mike on opportunities to set up something experimental that taps into Manitou and UMC. What about a partnership with USGS, RMRS, R2-AR and NPS Rick suggested? What about something in conjunction with CFLRP? And looking at Flams?
  3. Bats – Steve suggested species diversity and abundance. Looking at treated and untreated areas. We need to think about white-nosed syndrome. Rick will talk to Jeremy, Rob, Michael, from CNHP and Kirk Navo about

bat monitoring. We would welcome their thoughts. Rick thought that if we had a 1-page description written out with a price tag we should be able to get some funding.

4. Goshawk – Casey asked what we've been doing with goshawks. Lynne said they've been doing some surveying. In 2006 and 2010 maybe? In Colorado portion of Re-2. That's why we went for the 5 year cycle. So not as imminent. Rick said it's a whole different pot of money. The data would be valuable. Would CFLRP Wildlife funding pay for goshawk monitoring? Lynne said from the FS standpoint we're starting to think about 2015 already. Rick said we could do goshawk on year 2 and bats on year 4, for instance? Steve is viewing goshawks as one end of the spectrum or another, either we do some level of occupancy – or a Cadillac study where we're capturing them and putting GPS on them. Rick thought just a couple of occupancy cycles with the same grid. If goshawks become more politically prudent in the future maybe there'd be more funding. Would be useful for Phase 2 to do an estimate on half of our sites (not all 120). Casey asked if the roadshow how far do we build out the rest of these species for partners, vs saying here's the species that we're interested in?

We all agreed in the fall to get a seminar or something to get more people aware of what we're doing and generate interest. Maybe it would lead a faculty member to take it on for a student's master's project.

Rick clarified that some of these Tier 2 species may make more sense as a research project. Lynne thinks it would be advantageous with our master plan with the LR team to have those species and their needs.

Steve asked if it makes sense to have a 1-pager for all of these Tier-2 species. Steve would be willing to draft one and submit it. Casey asked about the whole Wildlife report – product and tool for the LR team. Rick said is identified as our core deliverable. He has pushed it back to the end of the calendar year. LR team is fine with that because we were working on getting the monitoring agreement going.

Lynne thinks we bring this to the LR team to start with, and bring it to the individual forest leadership teams. Hal was a huge part of this effort, but Canyon Lakes Ranger may not know the extent of what we want to do. What about CSU? What about USGS? Steve thought high value in getting USGS center director and branch chief to get up to speed and probably Jenny's leadership. It could be a field trip, or not. Lynne wondering if report can be done in late Fall or Winter. Casey thought we should have a canned presentation as opportunity arises we could pitch or present it. Late October or November. Casey thinks that CPW's research staff would be interested in understanding what we're doing. Steve thought we could take the decision makers to the field, and remind them about the risk of fire and what the FS is doing to mitigate and reduce risk, and we're the group thinking about wildlife. Also to educate them that there's pieces that haven't been implemented and there are still gaps, but we want the decision makers to know. Rick said the decision makers would be an obvious would be the Roundtable.

Who would be available to help put something together? Start with LR team and then forest leadership? Steve, Lynne, Rick, Janelle. Casey thinks the foresters are realizing the monitoring is becoming a competitive thing. In the future it could be a competitive process. Janelle said that the PSICC forest leadership team meets every other month in Pueblo.

- 5) **Report and future meetings** Rick proposed that we end Phase I of this team and begin Phase 2. Jenny, Casey and Lynne will continue to be part of the LR team and will represent the continued mission of the Wildlife team. We can decrease frequency of meetings. Still meet by phone June 17 – short 2 hour meeting. Do a field trip in July.

Hold a meeting in August (19?), develop 1 pagers by August? Rick and Lynne to start work on report by August. Or a 1-hour conference call. Team discussed RMBO being part of the LR team or Roundtable. Steve asked at what point does it become worth looking at long-term data? 2017 full data analysis would be done.

- 6) **Roadshow** Lynne talked briefly about the National Indicators – there are 4 measures, one is fish and wildlife habitat condition – Hal asked if we (Wildlife team) need to be tasked with answering that question. What are the desired conditions? Jenny’s opinion would be from her experience they want to see where each CFLR landscape is along that trajectory. So if we included a 1-2 page summary of our process of generating a list with a timeline and methods and justification of how our data will inform us that will be sufficient.

### **Next Steps:**

- **Steve** will ask around at USGS if they have any cameras, Reconex or other.
- **Casey** to talk to Jake Ivan about a trade. Casey will get Jake up to speed on what we’re doing. Would Jake be willing to go into the field with us? Or one of us can go with Jake and learn. He may be in the Rio Grande.
  - o **Rick** to see if he has Jake’s written protocol on the camera use.
- **Sarah** and **Janelle** to pull out all the ponderosa pine on maps.
- **Janelle** to check with PSICC on doing monitoring incorporating it on the UMC?
- **Someone** to set up a meeting with Paula Fornwalt and Mike Battaglia on setting up an experimental monitoring that taps into Linkhart’s work and the UMC and Manitou. Steve would be interested in working on that effort.
- **Rick** to talk to CNHP about bat monitoring.
- **Group** create a one-pager on the Tier-2 species. Who, What, Where, When Why? Not a lot of details? What should be done, why it should be done? Who? When?
  - o **Steve** – Flams
  - o **Felix** – bats
  - o **Janelle** – Beetles
  - o **Rick** - goshawks
- **Terra** to add time to the quarterly Roundtable agenda for an update on the Wildlife team monitoring effort.
- **Rick** to rewrite the team’s Why This, Why Now Statement
- **Terra** do a Doodle to schedule an early July field trip? Try to get Jake or an RMBO person to go out with us. Early – half hour before sunrise. Someone from RMBO crew to meet with us.
- **Terra** check with Gali on my funding for future Wildlife work and meetings.
- **Terra** cancel RO room for June?