

 <p>Front Range Roundtable Fuels Stewardship Partnerships</p>	<p>Monthly Meeting</p>	<p>Wildlife Working Team</p>
<p>Created by: Terra Lenihan</p>	<p><i>Meeting Minutes</i></p>	<p>Tuesday, January 14, 2014</p>

Meeting Name	Monthly Meeting #15
Meeting Date	Tuesday, January 21, 2014
Meeting Time	10:00 AM – 3:00 PM MDT
Venue	Colorado Department of Fish & Wildlife, 6060 Broadway, Denver
Attendees	Terra Lenihan (Beh Consulting), Rick Truex (US Forest Service), Casey Cooley (Colorado Division of Parks and Wildlife), Lynne Deibel (US Forest Service, ARP), Felix Quesada (US Forest Service, PSICC), Jenny Briggs (US Geological Survey), Steve Germaine (US Geological Survey), Janelle Valladares (US Forest Service)

Meeting Notes

1) Welcome and Ice Breaker

2) Today’s Agenda:

Lynne passed out notes from the December meeting. Lynne and Rick met with Hal Gibbs and Sara Mayben recently; they announced that it looks like the Wildlife team will have the opportunity to move forward with our project this year. So we need to get some work done to keep the ball rolling. They are committed for the long-term, based on funding. Lynne was optimistic about this decision. Looks like there will be a piece of funding each year for wildlife.

1. Discussion with Hal and Sara – Agreement is to stick close to concepts that have been and will be presented in February at the Landscape Restoration meeting. They still want to see a final report by this summer but they understand the need to get going on the work. They discussed where CFLR money goes; there is not a specific allocation for us. There is still commitment to the CSE and SE to do it and CFRI to monitor on a yearly basis. Rick’s points:

- Move forward based on our group’s recommendations. Highlighted the need to include data management analysis angles.
- Strong message to try to set this up so we work with other groups.
- Update to LR team. 90% report will be okay.
- Talked about who on which Forest unit to do the work.
- Recommended that we include a “Tier 1” and “Tier 2” approach (Tier 2 may be done by other funds or other partners)
- Assuming sampling on both forests on multiple districts.
- Mike Welker won’t be involved
- Evan Burks may be the point of contact. Do we want to invite him to a meeting or get him on board? Rick thought not at this point. Jenny also brought up how to keep tabs on the Pike and ask Janelle if

she has room in her job for that. Right now the monitoring is pretty piecemeal. She thinks one person on each forest would be really helpful. Janelle thought that maybe she and Evan could work together for a while and then he could take it over.

- 1) Right now CFRI is overseeing. Talked about 3rd person monitoring; CFRI not the right people for Wildlife monitoring. RMBO can do processing of bird stuff. We need to talk about another group. Janelle thought about CNHP. Rick said we need to think about costs and depend on the data. RMBO doesn't do temporal analysis. That needs to be on the radar for future. Having a 3rd party will have merit for transparency.
 - 2) Hal suggested we present something at the LR meeting that we like.
 - 3) Timeline has changed; we have to work on implementation; now we need to get things set in place for LR team meeting; the writing will make it easier. Focus needs to be on getting our agreement set up.
 - 4) Group thinks density and occupancy are most important focus. Let them know that there are some well-respected protocols for monitoring.
 - 5) Casey asked what type of recommendation do we need to make to the LR team? Lynne thinks more detailed. Rick said he has a good idea on how to present. More detailed; will need to do some GIS work before the 2/12 meeting. Janelle has started the GIS work. She has the AR data. Lynne's been trying to get the AR shape files. Lynne said to let her know and make sure [South Zone and Canyon Lakes are both included](#) ~~there is the south side and Clear lakes~~. Rick said the mapping will be consistent across both forests.
 - 6) Lynne asked about "what is CFLR+" so we know we're in the same space. Rick said we'd discuss today.
 - 7) We would have funds available for CFLRP and monitoring group would hire staff to do it; we have a master agreement with (RMBO?). We could also see if other groups could do it; but makes sense to [have](#) RMBO to do it since that is what they do. Squirrels – need to look at other groups that may have capacity – CNHP, USGS, CPW, etc. For tree squirrel monitoring. Rick thinks that RMBO will collect pine squirrel data in their monitoring.
 - 8) Lynne brought up that Kirk [Nove-Navo](#) (Head First Consulting) talked w AR biologists – acoustic monitoring on species other than birds (bats, mammals) – may want to consider cutting edge technologies.
 - 9) Jenny discussed that there are some stakeholders that are advocating for more transparency for monitoring. She said other CFLRs came in with transparency (a % of budgets to be spent on monitoring, etc).
- Lynne won't be the point of contact for both forests. Lynne will be contact for AR.
 - We need a point of contact at each forest, and a regional point of contact.

3. **Vote on what species we will move forward on** (take our list of 13 and decide what to move forward)

Species	Tier	Frequency	Protocol
SCAB	1		
TAHU			
ERDO	X do not recommend		
Bats	Tier 2 (1 dissent)		
NOGO	1		
FLAM	2		
WISA		Every year – we have capacity	IMBCR
HAWO			
MOBL	1		
OSFL	1		
PYNU	1		
GCKI	1		
Carabid beetle	2		CSU partnership- spatially intensive research?

Notes on table:

- Tier 1 – core FS funding
- Tier 2 – FS & opportunistic funding (reliant on unknown funding sources to get monitored)
- FREQ – sampling frequency (annual, biannual, etc)
- Steve on frequency – can't think of a reason that anything needs annual frequency. He'd vote more taxa and less frequency. Lynne said we've talked about doing pre-treatment monitoring. Do we want to use funding for that? Jenny said we'd look at controlled areas to serve as a baseline? Rick thinks we can't pull off more than a finite group of species this year. On the annual discussion (Steve) we don't need to sample every year, but some species have higher reproductive rates and shorter life spans and so an annual pulse may be important. Annual would get more information without being too costly. But he agrees generally. Rick asked what's beyond Monument Creek. More for Catamount. Felix said potential. Phantom Creek; there's some existing NEPA in place.
- **MOBL, OSFL, PYNU, GCKI – group voted these species as a Tier 1.** IMBCR ~\$800/plot – so theoretically with \$100K, that's 100 plots, so would there be 100 plots available? How many project area acres are there? Lynne said their goal is 2000 acres/year. What about in the treated areas? Probably 10-20,000 acres in Canyon Lakes. Say there is a 60,000 CFLR acres. There are ~242 sq kilometers. Seems like we have plenty of plots available with that general spectrum. 100 per year would be a reasonable spatial recommendation.
- Porcupine discussion – theoretically they can be detected through the aerial detection. Porcupines attack trees. Jenny said they can be radio collared. But nothing integrates those two levels of monitoring. Could we pull out inference from ADS? Casey said they destroy trees but there's not dead trees in huge patches. Similar to deer/elk – hard to detect and with limited funds we should focus on species that are more detectable.
- Carabid beetle – Lynne asked how long a species can be preserved; a long time. Jenny said they do have resources with etymologists – CSU class and RMRS; students can identify order and family with someone at RMRS managing the process. There's expertise and interest. Protocols are not that hard

and give a lot of payoff. Pitfall sampling. Asked about how they got here. They do respond to treatment. Species assemblage changed. Studies from ponderosa pine in AZ. Casey asked why we need to monitor again if we know that information already? But Felix said we don't know long term effects. Jenny brought up if we get complementary information from the prey. Rick's concern with carabid beetles at the scale of CFLRP are terms of cost and time – quantity of stuff you get and the time we'd have. It's not an efficient use of money and more spatially intensive. He recommends it's a Tier 2. Steve thought in the SW study, there's broad recognition. Things that weren't invertebrates – pollinators, decomposers, soils microbes, other things were highly important in maintaining ecosystem function; suggesting the Tier 2 but these things warrant their own paragraph in saying what we think are top tier; but explaining why we made them Tier 2. Rick added that we use this etymology department to look at a smaller scale decomposer role. This could be a great partnership opportunity. Everyone agreed. Casey asked if we would see carabid beetles increase depending on downed material. But Janelle said actually more disturbance the more carabid detected. Most are eating other insects. **Carabid Beetle Tier 2.**

- Bats discussion – Felix suggested not monitoring annually, maybe every five years. It's expensive. Limitations in identifying species. Rick asked does this include Myotis, big brown, etc. Rick suggests we don't recommend because the response is a little less clear than some of the other species. Too much other noise going on with bats. We'd be monitoring non-treated areas. With white nose populations some could crash by 90%. Rick recommends we do not monitor. Steve motions Tier 2. Steve said he thinks we can get presence on them. They're either using these spaces or not. Lynne agrees if we leave it as Tier 2 the opportunity is still available. If we take it off we may lose that opportunity. Casey said acoustic monitoring isn't as hard as people think it is. Upfront costs are a little more expensive, but after those costs, very little costs in future years in gathering that information. Janelle said there is a lot of interest and research going on with bats right now so that body is building currently. Felix said we didn't talk about scale much. An SM2 is \$400 but they have some (CPW) that do cave monitoring. Rick said we'd probably need 50 of them at least. Rick thought a lot of them those would be deployed in the summer months because of the monitoring of bats right now. There could be more use for those for AML. It's analytically a specialty. Motion for Tier 2. One dissent. Otherwise everyone agreed. Rick changed his dissent. Maybe bats stay on as a research project in the future. We can make those kind of strategic recommendations in our report. **Bats Tier 2.**
- Casey asked how much do we need to show – with cutting or not recommending 13 species – to what level do we need to show (our rationale)? We show what the Wildlife team feels is best. I.e, thinking about flamulated owls v bats, you can make a lot of arguments for and against.
- Steve asked why we are cutting more when we went through this long process of cutting species. Does us cutting species now weaken our process up until now? Jenny explained the porcupine. Other than porcupine we need to keep them on the list as a Tier 1 or a 2. Rick said we should be very thoughtful about giving Tier 1 status because of the base funding – we need to start thinking most bang for your buck.
- Tree squirrel discussion – SCAB – Jenny votes Tier 1. They are ecologically informative. There's a lot of research showing as far as habitat components they favor clumps and – not sure what the implementation group is choosing for monitoring (visual, camera trap?) but they seemed backed by a lot of research to be ecologically informative. Rick asked if that was true for both squirrels. Casey

thought yes because you would sample them the same, but if we just pigeonholed Abert's, we would have a harder time getting the detection for that squirrel. He was thinking camera trap surveys, but that could change. We should group them as tree squirrels; with the diversity of treatments across the forest type it would be good to do both. **SCAB Tier 1.**

- Protocols for flammulated owl and Northern goshawk – theory is that seasons are close enough aligned that they could do both flams and Northern goshawks (together) – but one is day other dusk-dawn., Casey looked up and goshawk their [presence-survey window](#) is June 1-August 15 and Flammulated owl May 15-June 30.
- Flammulated owl – Tier 1 arguments – Felix brought up Linkhart (study) – there was a paper of occupancy in our area and they were tied to old growth. Fuels fire personnel thinks the Experimental forest looks bad and is about to go up in flames. They are in the CFLR footprint. We have the unmanaged component. Lynne said on the Canyon lakes they generally do get a response but they struggle with snags, etc. Rick suggested Tier 2 – arguable more common than we think; migratory tendencies. **Flammulated Owl Tier 2**
- Northern Goshawk as Tier 1 – Goshawks could be very useful. They are informative, why? Operating at a different spatial scale – work in the SW showed prey-based in the food web. As a predator – also there is a national monitoring program in place. Lynne asked if we would keep them as a CFLR+ for now. Rick thought yes. Steve asked what would the hypothesis be for goshawks; are treatments going to be large enough to survey and have a high level of assuredness, i.e., so we aren't getting a bird moving from an untreated area and recording that. Rick thinks goshawks will be a smaller sample size. Treatment areas are generally large enough for this monitoring. Rick thought goshawks may be a wild card in this monitoring. May just be status and trend data. Felix thinks they are well represented and wonders how treatments are going to change their occupancy. At Hayman they are not occupying. Rick said it's a lack of good management is the reason. Janelle brought up snags and treatments and the flammulated owls are more common than we thought; maybe they are a better option (as a Tier 1 then goshawk) because snags are something we struggle with. Rick responded why not just measure snags directly? Jenny brought up that we should have a species that needs snags represented. Steve is thinking about how many cavity nesters are up there. Are snags [_a eliminatinglimiting](#) resources? Lynne worries about structure – we're losing that. Casey asked about our treatments – if our prescriptions are so homogenous – do their numbers go down? Felix is wondering about occupancy. Rick expects no discernable trend with goshawks. If we want to increase diversity, then the goshawk numbers will go down. Jenny asked theoretically if treatments change the small mammal's habitat then would the goshawk numbers go down? Casey asked if we can evaluate flammulated owls further or do a pilot to see if it would be useful for us. The large scale of goshawk is the most compelling reason we kept it on the list. It's interesting with flammulated owls too. It could come out at a project level scale. Felix said we have several nests around the landscape and some are being used, others aren't and they are not monitoring those. Steve thought a pilot would be informative – are we collecting enough goshawk data to inform us? This is in a Tier 1 Northern goshawk, Tier 2 flam scenario. Rick said maybe a 2-year Northern goshawk pilot program with the state. Casey wants to know if people think it's not as informative? Is it not ecologically informative or we won't be able to detect anything. Felix thinks the protocol is good. He wanted to know what we are going to learn from this. Lynne thought at Canyon Lakes there is not a lot of clearance surveys, the district biologist does goshawk surveys and they track them over time over the

district. Prior to the CFLR treatments, it is likely before the CFLR treatments they will survey. But it will just tell you if they are there. Casey wondered if it is important to do that on a project-by-project basis, why is it not important to do here? Felix agrees but they are just doing the minimum. Felix is just wondering how monitoring this species is going to help inform management? Rick says it doesn't have to. Goshawk would inform at a bigger, NEPA level. Not at a project design scale. It's more at a landscape scale. Lynne said it could inform on the structure level. They may be too abundant because the forest is so dense. Rick thinks it's the best indicator but at a larger scale. Thinks Northern goshawk and flammulated owl should be Tier 2. Casey reminded the whole point of CFLRP is to work at a landscape scale and not a project scale. We're supposed to be doing a landscape scale. That is the one species that we could actually measure at the CFLRP scale. Jenny said what we don't know if CFLRP will change is it's abundance in 5 or 10 years; it is the only species that operates at that scale on that list. Sensitivity to the prey based could make a change to the goshawk level. Felix thinks they are more of a generalist than people think they are. Casey is thinking at year five couldn't we make a decision at that point that is not the way we should or shouldn't go. Lynne brought up Adaptive Management. Steve brought up that we don't have to monitor everything every year. Rick said goshawks are probably the longest living species on our list. We could propose two sampling periods. Jenny asked if we can recommend additional habitat measurements like snag and woody debris because those aren't currently being monitored. Then she'd be ok with making flammulated owl a Tier 2. **Northern Goshawk Tier 1.**

- Sapsucker, hairy woodpecker discussion – talked about pygmy and mountain bluebird. They forage in different parts of the trees, some in snags. Sapsucker needs a tree with open sap. The ecological info from the five cavity nesting bird species are very complementary. Casey discussed the survey technique is for breeding birds, but questioned the data; the way we're using the data is based on the breeding birds; his vote is to keep them altogether it's one sampling technique. If you add two more species from the sampling technique, that only adds credence to that sampling technique and it's ancillary information. Rick recalls with that protocol those two species are recorded with lower probability – we can lump them because the techniques are. Snag dependency – does that get at flammulated owl? Does it work in concert with that and the snag dependency? Lynne brought up the size of snags – larger, older and sturdier snags that some species require, if we kept them separate do we get information about what types; a higher sampling number on certain species. Jenny sees a problem with what's been done so far – people doing the CSE data collection – if you're doing the bird surveys how could we combine those data? Hard to do right now. Lynne is okay with clumping WISA, HAWO, MOBL, OSFL, PYNU, GCKI.
- Frequency of Monitoring discussion

Year	1	2	3	4	5	6	7	...
Avian	100% or X		100 X		(100) X		(100) X	
Squirrel		(100) X		(100) X		(100) X		
Nogo (2 or 3 times)			100			100		

- X = full funding; Y if enough funding. Maybe do this instead of Tier 1 and Tier 2. So on a species off year or "Y" year, they become Tier 2. Lynne brought up that someone from Wildlife team will need to

sit at the LR table for years to come to have a place at the table for future funding. Casey likes this graph because it gives us a roadmap of what we need in the future so other partners can possibly understand where they can help. Casey wondered about putting 100% in squirrels, say, could they ax that? Are we approaching it the right way? Is it easier to sell goshawks or squirrels? Maybe it could be all wrapped up in one protocol. You can capture avian squirrels somewhat using the bird monitoring.

4. **Implementation and design discussions**– Rick will give us an update on design piece
5. **Prep for 2/12 LR meeting** – present this to the LR team. Deliver approach to LR team. Everyone is welcome to join that meeting.
 - Dates on a calendar – morning of 2/12.
6. **Next Steps**
 - **Terra** invite wildlife team to the 2/12 LR meeting.
 - **Wildlife team** meet before the next LR meeting (possibly right before meeting on 2/12?).
 - **Janelle, Rick and Lynne** – set up time to look at GIS data. Let Lynne know if you need anything from her. Work together – Rick get grid from Jake Ivan. Janelle check on the date of her AR data.
 - **Terra** add some of these species discussion to the wildlife rationale.
 - Future opportunities section in the report – include scarab beetles. And the CSU etymology department. Write taxonomic representation – invertebrates as functional roles.
 - **Jenny** to ask Paula about the data set available from flammulated owls
 - **Terra** to change next meeting to a conference call. If there are assignments to be done, we will try harder to get those out. Do a conference call to recap the 2/12 LR meeting. 10 a.m. call. Then meet in March. Terra will send it around. Set up GoTo Meeting.
 - **Lynne** finish implementation table – work with **Casey** on finishing that up.
 - **Design team?** Do they need to do some next steps?
 - **Writing team?** Next steps?
7. **Anticipated LR questions**
 - LR meeting discussion – refresher on our framework. How we got from 300+ species to 13. After that we will highlight core sideboards that we established – density/occupancy metrics. Id those metrics as in our collective opinions as appropriate for the CFLR. Define how we’re thinking about the CFLRP+; then with the 13 species – launch into these recommendations. Why that’s a good way to go. Maybe something like bats or other secondary species; ideas on ways they can be monitored or researched for a short term project. We need a group photo – send to Terra. Casey is curious if going into the general protocols is appropriate? Try to show how this looks on the landscape, ie the Monument Creek. 45 minutes with a break to follow. Rick will be presenting this team to the Uncompaghre CFLR group.
 - Plans for this team? Rick and Lynne said they talked to Hal about it – this team could stay together this Spring; draft report done by June. Phase I of the team would be complete. Think about long term plan. Needs to be a Wildlife Advisory Group within the LR team. We need to be incorporated somewhat in Rob Addington’s monitoring group that would vet the information and make sure we are getting where we need to be getting. Our data would be very informative at that level. It’s important that we use that data on a broader level. We will stay together until May or June, until report is finalized. Then a sub group stays together for LR team presence.

- Discussion about no terrestrial species being on the list (other than porcupine) small or large carnivores or ungulates. We have a detailed explanation. How are we going to respond to that question? Is it ecologically informative? Rick can respond to that pretty quickly and easily. Carnivores are generalist and difficult to study and/or get a response. For ungulates, largely because of movement patterns; more direct measures of habitats etc. Jenny thought we may have to add that or publicize our interest in other groups. Casey thought about the scale of it and how informative it's going to be – probably no response from mule deer and elk. Part of it is scale and part of it is the mule deer have been hit with chronic wasting disease; there's too much "noise." Lynne also brought up that someone could jump on that opportunity to monitor some of these. Rick thought in our final outline we could add a section called "other opportunities for monitoring."