

FEE email 2019



Derek Lee <derek@wildnatureinstitute.org>

Decision on Manuscript ID FEE19-0075 - Frontiers in Ecology and the Environment

Heidi Swanson <onbehalf@manuscriptcentral.com>

Sun, Apr 7, 2019 at 6:42 AM

Reply-To: heidi@esa.org

To: derek@wildnatureinstitute.org

Dear Dr. Lee,

We have now had a chance to consider your letter FEE19-0075 entitled "We refute the "conundrum of agenda-driven science": A comment on Peery et al. 2019", which was submitted to the journal Frontiers in Ecology and the Environment.

In view of the history leading up to the submission of this letter, I felt it was important that I should not be the one to make the decision on whether to send the manuscript out to peer review. Therefore, a subset of six members of the Frontiers Editorial Board were chosen and all materials sent to them. These Associate Editors are from a range of specialties.

The question they were asked was whether the letter should go out to peer review. All have answered in the negative and their comments are reproduced below. Some have commented further on the issues, as you will see. Only one is arguing about points you have made in your letter. In all other cases, the recommendations are based solely on their view that this letter is not appropriate for publication in Frontiers.

Thank you for your patience with the slightly longer timeframe required to reach this decision not to proceed further in this matter.

Sincerely,

Sue Silver, PhD
Editor-in-Chief
Frontiers in Ecology and the Environment

AE 1

I don't see that Lee et al. have addressed or contested any of the identified issues in the Peery et al. letter (i.e., the "Elements of agenda-driven science" in Table 1), which would be the main subject of such a letter. Rather, the letter is an attempt to launch a personal attack on the Peery et al. authors, and this is not the direction I believe FEE should go, as this inter-group rivalry back-and-forth name-calling would be of little interest to the readership of FEE. Therefore, I would recommend declining the letter without review. Lee et al. will likely "publish" this on their social media site (which of course, violates Element 4 in Table 1, thereby reinforcing the Peery et al. contention).

AE 2

I don't think this should go out for review, based solely on the fact that it is not about agenda-driven science but about the information about the authors in the webpanel.

AE 3

I have read carefully through all the material you provided as well as the Frontiers Write Back and Web Panel on the subject. Note that I am not an expert on the scientific matters at debate and that I do not have sufficient information to determine objectively the "right and wrong" on the scientific matters at hand. I would judge that the response letter by Lee and colleagues is not appropriate for peer review for Frontiers because it does not directly concern scientific matters, except to the extent that it attempts to refute the case study supporting a definition of "agenda-driven science" provided in the published Write Back. This refutation concerns not the definition but the evidence in the case study and as such does not advance the basic problem.

AE 4

This shows the horrible power dynamics at play among scientists (grad students, faculty) and our inability to have thoughtful and constructive disagreements.

In terms of the write back letter, I don't think it is appropriate for FEE to publish it. Admittedly, I wish that the web panel hadn't been published either (or at least parts of it, the personal attacks). But, at this point, I don't feel that the Lee et al.'s write back letter contributes anything new to the discussion, and is obviously a personal defense of themselves and a personal attack on the other group of authors. I recommend reject without review.

AE 5

I don't think this should go out for review. Some of the statements referring to the literature show a lack of understanding of statistics (e.g. Eye et al.) and a mis-representation of findings (Ganey et al.).

In the second paragraph under the subheading Peery et al.'s criticisms were baseless, the authors cite Eyes et al. (2017) and Ganey et al. (2017; Table 1) as having been cited in a biased manner by Peery et al. The authors write: "Eyes et al. (2017) found no statistically significant avoidance effect of high-severity fire and the nearly significant effect size was small". I read that paper. Eye et al. don't report p-values, which would be wholly inappropriate given their analysis. Plus, there is no such thing as nearly significant. Eye et al. used a model selection approach. Since their three top models are essentially indistinguishable ($AICc < 2$), they calculated an odds ratio. The interpretation of the odds ratio is that if < 1 , there is a decreased probability of the response variable for each unit increase in the predictor variable. Thus, in this study, fire severity index goes up, the odds ratio of nonuse by owls increases. While the authors state that the 95% CI includes 1 and indicates less confidence, they do not report some arbitrary statistical threshold. "Ganey et al. (2017; Table 1) found almost entirely neutral or positive effects of high-severity fire where no post-fire logging had occurred". I read this paper too. Table 1 reports that when post-fire salvage logging did not follow high-severity fire there were three negative effects, one positive effect, and three neutral effects. Four out of seven is not almost entirely.

The authors state that Peery et al. have a funding bias and provide the contract between USFS and University of Wisconsin as evidence. The contract states that any public documents should include:

"Pacific Southwest Region of the US Forest Service, Department of Agriculture is contributing to the viability of the California Spotted Owl." Contributing: give (something, especially money) in order to help achieve or provide something. Viability: ability to survive or live successfully. The USFS contract is asking for acknowledgement that the PSW region is contributing money to help the California Spotted Owl to survive or live successfully through this agreement. While not the best acknowledgement wording for a sponsor, they are supporting research to understand the owl and I assume it is so they can make science-based management decisions.

"For example, Dr. Hanson is not a lawyer, and has never practiced law." From the John Muir Project website: "Chad earned his law degree in 1995, and started the John Muir Project shortly thereafter." <http://johnmuirproject.org/profile/chad-hanson/>

I'm not sure why they included the email from Lee to Jones, but that has got to be one of the poorest demonstrations of behavior toward a graduate student that I've seen. In fact, the ESA Code of Ethics states: "Ecologists will not practice or condone harassment in any form in any professional context." This email violates that requirement. Graduate students should never be placed in this position because they have a near complete lack of power within the university structure and research community. If Jones were my student, I would have filed a grievance with the ESA.

AE 6

I'm not familiar with the players in this exchange, but this has been a contentious issue for at least 30 yrs.

I looked over the original *Frontiers* paper and can see no reason why it should have been rejected or accused of anything nefarious. In fact, Jones et al. pointed out differences with Lee et al. and suggested reasonable explanations for different results. Obviously, *Frontiers* is not the place to fight out philosophical disagreements. Lee et al. should publish their work and let the results speak for themselves.



email to GJones

Derek Lee <derek@wildnatureinstitute.org>

Jones et al. 2016

1 message

Derek Lee <derek@wildnatureinstitute.org>
To: gmjones10@gmail.com, gjones3@wisc.edu

Fri, Aug 26, 2016 at 11:46 AM

Hi Gavin,

I hope you understand that your paper has already been used to justify logging by the USFS, and will continue to be used by them to cause damage to spotted owl habitat via logging. For this reason, and because your paper has fatal flaws in the analysis and interpretation, I ask you to retract it pending reanalysis. I am deeply concerned that spotted owls will have insult added to injury by this paper and beseech you to put their fate above yourself in this critical moment of importance to forest ecology.

My concerns are:

The exclusion of a temporal trend from the occupancy analysis when the population is in freefall, as in this case, is misleading. Fig 3e hockeystick trend is ad hoc and unjustified. I know you did a model ranking and the hockeystick was top-ranked, but there was no justification provided for running that model. If you could have fit a cubic or any mathematically based trend, I would not be so critical, but that 'segmented' trend is a problem. At the very least you should analyze with the quadratic trend and present the sensitivity of the analysis to your choice of temporal trend model.

Compositional analysis of habitat use is inappropriate for central place foragers like Spotted Owls. By omitting the distance to center effect and analyzing simplistic ratios rather than resource selection functions, the radiotelemetry results and discussion are invalid.

Furthermore, you incorrectly characterized previous studies and the data you analyzed.

"The observation that lower-severity fire is benign, and perhaps even moderately beneficial, to spotted owls is consistent with previous studies (Roberts et al. 2011; Lee et al. 2012)"
Both those studies found mixed-severity fire had no effect on occupancy, mixed severity fire is common in the Sierra Nevada and includes low, moderate, and high severity burn.

"because owls were not individually marked in the Rim Fire study, some detections at "occupied" sites may have involved individuals from neighboring territories or non-territorial "floaters" (Lee and Bond 2015), both of which may have contributed to inflated estimates of territory occupancy."
This exact same situation exists in your data. Data were collected as described in Tempel & Gutierrez 2013, "We included both nocturnal and diurnal surveys in our occupancy analyses." During nocturnal surveys leg bands are usually not resighted, therefore nocturnal detections at occupied sites would have been similarly inflated by individuals from neighboring territories or non-territorial floaters.

Finally, you downplay your very small sample size by reporting the study area sample size, not the sample size of occupied territories in 2014.

Please do the right thing.

Sincerely,
Derek Lee

Derek Lee, Ph.D.
Principal Scientist

Wild Nature Institute

Letter to FREE editors 8Sep2016

8 September 2016

Dear Drs. Silver and Mooreside,

We are writing you regarding the paper by Gavin Jones et al. "Megafires: an emerging threat to old-forest species" published in *Frontier of Ecology and the Environment*. Jones et al. claim their data describe for the first time, a strong negative impact of severe fire on site extinction rates for spotted owls and significant avoidance of high-severity fire areas for foraging. Unfortunately, the paper has fatal flaws in the data analyses that render their results and discussion highly questionable. Additionally, significant errors of scholarship exist in the paper. Given the fact that the paper has real-world consequences as land managers are using the paper to justify logging spotted owl habitat under the pretense of reducing fire risk, we request that you investigate the basis of our claims and consider retracting the paper.

Flaws of analysis:

1) The authors neglected to include a temporal trend effect in the site occupancy dynamics analysis. The population is in freefall, yet the authors compared their 1 year of post fire data against all previous years without accounting for a temporal trend in colonization and extinction probabilities. A temporal trend in extinction and colonization was documented for this population by Tempel and Gutierrez (2013) with the same data used in the Jones et al. (2016) study up to 2010.

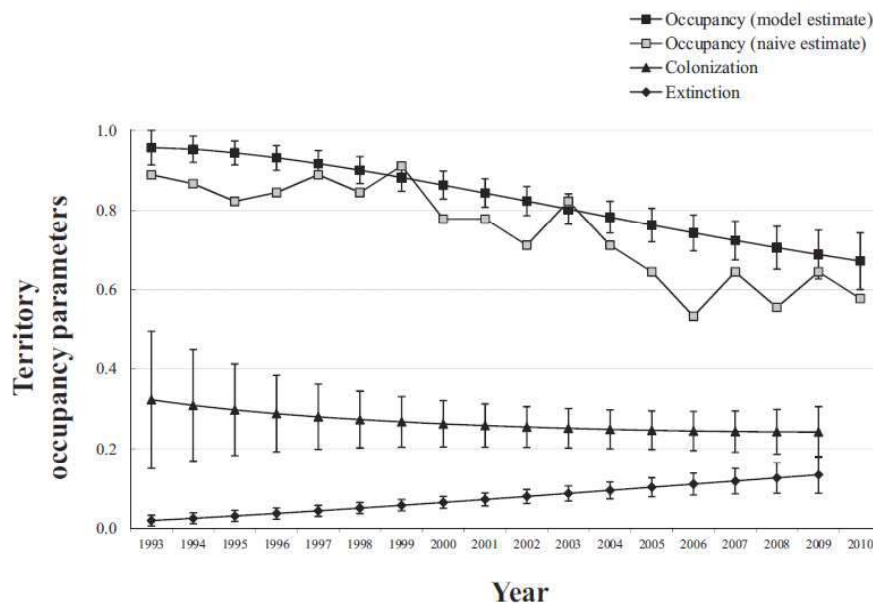
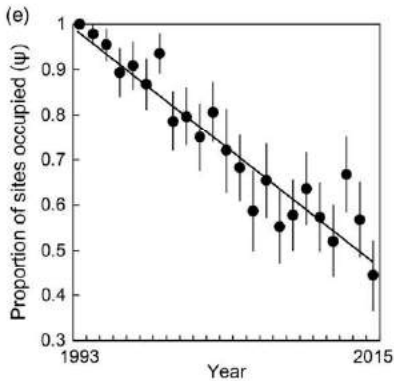
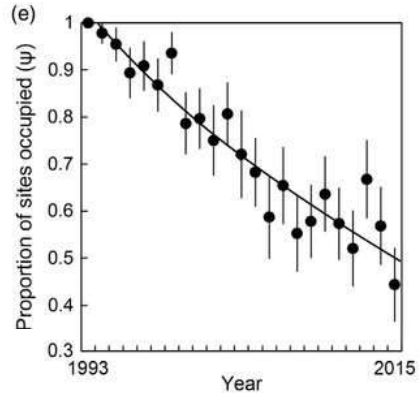


Figure 1 From Tempel and Gutierrez (2013). Annual model-averaged estimates (SE) of territory extinction, colonization, and occupancy at California Spotted Owl (*Strix occidentalis occidentalis*) territories in the central Sierra Nevada, 1993–2010.

2) Jones et al. did a separate analysis of trend in site occupancy rate, but the hockeystick 'segmented' trend in Fig 3e and WebTable 4 is ad hoc and unjustified. The temporal trend graphs they should have presented were the linear or quadratic trend (most likely the quadratic trend based on WebTable 4):



Annual spotted owl site occupancy data from El Dorado density study area with linear trend.



Annual spotted owl site occupancy data from El Dorado density study area with a quadratic trend.

3) Compositional analysis of habitat use is inappropriate for central place foragers like spotted owls (Carey and Peeler 1995, Rosenberg and McKelvey 1999, Irwin et al. 2007, Bond et al. 2009, Bond et al. 2016). By omitting the distance to center effect and analyzing simplistic ratios rather than resource selection functions, the radiotelemetry results and discussion are invalid.

The above analyses form the basis of all conclusions and discussion, and because they are flawed, the results and discussion are invalid; therefore, we feel the paper should be retracted.

Furthermore,

4) Jones et al. make a strong argument that there was almost no salvage logging, meaning they should not have had enough data to include it as a factor in their models. However, they did include salvage, then dismissed it as non-significant, even though the most-likely reason it was non-significant and low-ranked was that there weren't enough data. The authors should have said there weren't enough data and dropped the topic of salvage. Alternatively, they should have done model averaging and then salvage would have had an impact on extinction probability.

5) In their habitat use analyses, Jones et al. failed to distinguish high-severity fire areas in clearcuts, which are pervasive in the study area, from intact snag forest habitat created by high-severity fire occurring in mature conifer forest which was not post-fire logged.

6) Authors reported territory "extinction" for the territory (ELD085) at bottom left of WebFigure 4 when in fact this territory remained occupied, but the owls merely shifted their location by a distance less than the diameter of a territory defined by the authors and less than the mean foraging distance of an owl. The authors did not follow the longstanding practice to appropriately recognize that this is the same territory, but instead, inflated their "extinction" figures by improperly classifying minor annual shifting as lost occupancy.

Incorrect scholarship in the text:

7) Pg. 304 "The observation that lower-severity fire is benign, and perhaps even moderately beneficial, to spotted owls is consistent with previous studies (Roberts et al. 2011; Lee et al. 2012)"

Both those studies found mixed-severity fire (rather than lower-severity fire) had no effect on occupancy. Mixed severity fire is common historically and currently in the Sierra Nevada and explicitly includes low, moderate, and high severity burned patches.

8) Pg. 305, “because owls were not individually marked in the Rim Fire study, some detections at “occupied” sites may have involved individuals from neighboring territories or non-territorial “floaters” (Lee and Bond 2015), both of which may have contributed to inflated estimates of territory occupancy.”

This exact same situation exists in the data analysed by Jones et al. Data were collected as described in Tempel and Gutierrez (2013), “We included both nocturnal and diurnal surveys in our occupancy analyses.” During nocturnal surveys leg bands were usually not resighted, therefore detections at occupied sites would have been similarly inflated by individuals from neighboring territories or non-territorial floaters.

In conclusion, we feel the paper’s authors have made gross errors of scholarship, analysis, and interpretation, and we request that the editors retract the paper based upon these fatal errors.

Sincerely,

Derek E. Lee, PhD

Monica L. Bond, MS

Chad T. Hanson, PhD

Sue Silver correspondence re Jones 1



Derek Lee <derek@wildnatureinstitute.org>

Jones et al. 2016

6 messages

Derek Lee <derek@wildnatureinstitute.org>

Sun, Aug 28, 2016 at 9:21 AM

To: suesilver@esa.org, peter@esa.org

Dear Drs. Silver and Mooreside,

I and a number of my colleagues have identified fatal errors in a paper recently published in the journal *Frontiers in Ecology and the Environment*. Please advise me of the retraction policy of your journal in order to proceed according to proper protocols.

Sincerely,
Derek Lee

Derek Lee, Ph.D.
Principal Scientist
Wild Nature Institute

Sue Silver <SueSilver@esa.org>

Mon, Aug 29, 2016 at 4:09 PM

To: Derek Lee <derek@wildnatureinstitute.org>, Peter Mooreside <peter@esa.org>

Dear Dr Lee

Thank you for your email. However, I will need more information from you before I can proceed to any action. What is your connection with this paper? How did these errors come to light? Have you discussed your concerns with the authors and what is their reaction?

Frontiers follows the guidelines on retraction provided by the Committee on Publication Ethics (COPE).

Retraction is initiated by the journal or by the authors or their institution. In this case, absent a request by the authors or their institution to retract the paper, and detailed reasons for doing so, and since the paper was reviewed by a *Frontiers* Associate Editor and two peer reviewers, I would begin by asking them to examine the evidence for these errors. If warranted, I would then discuss the issue with the *Frontiers* editorial board, relevant senior staff at ESA, and with the authors, before making any decision. If the paper does indeed contain one or more errors, another option may be to publish an erratum.

If the issue is that you disagree with the findings of the paper, another option would be for you to submit a letter to the journal, stating your concerns. This would be peer reviewed and so your views will receive very careful consideration.

I will await further information from you on this matter

Sue Silver

Sue Silver PhD

Editor-in-Chief, *Frontiers in Ecology and the Environment*

1990 M Street, NW, Suite 700

Washington, DC 20036

Tel: 202 833 8773, ext 233

Fax: 202 833 8775

Email: suesilver@esa.org

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www.frontiersinecology.org

[Quoted text hidden]

Derek Lee <derek@wildnatureinstitute.org>

Thu, Sep 8, 2016 at 7:07 PM

To: Sue Silver <SueSilver@esa.org>, Peter Mooreside <peter@esa.org>

Bcc: monica <monica@wildnatureinstitute.org>, Chad Hanson <cthanson1@gmail.com>

Dear Drs. Silver and Mooreside,

I apologize for the delay in responding, I have been in the field.

My connection to the paper is that I am one of the 2 most-published scientists working on the topic of spotted owls and fire, so I take a keen interest in the topic. The errors were apparent to me and others upon first reading of the paper. I contacted the authors regarding our concerns and was told to take up the issue with the journal editors. Attached is a formal letter to you addressing our thoughts on the paper.

Sincerely,
Derek Lee

Derek Lee, Ph.D.
Principal Scientist
Wild Nature Institute

[Quoted text hidden]



to FREE editors 8Sep2016.docx

153K

Sue Silver <SueSilver@esa.org>

Thu, Sep 8, 2016 at 10:35 PM

To: Derek Lee <derek@wildnatureinstitute.org>, Peter Mooreside <peter@esa.org>

Dear Dr Lee

Thank you for your email and letter. I would like to consult with a member of my editorial board before proceeding

further with this matter and will contact you again early next week.

Sue Silver PhD

Editor-in-Chief, *Frontiers in Ecology and the Environment*

1990 M Street, NW, Suite 700

Washington, DC 20036

Tel: 202 833 8773, ext 233

Fax: 202 833 8775

Email: suesilver@esa.org

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www.frontiersinecology.org

From: Derek Lee [mailto:derek@wildnatureinstitute.org]

Sent: Thursday, September 08, 2016 12:07 PM

To: Sue Silver; Peter Mooreside

[Quoted text hidden]

[Quoted text hidden]

Sue Silver <SueSilver@esa.org>
To: Derek Lee <derek@wildnatureinstitute.org>

Fri, Sep 16, 2016 at 11:10 PM

Dear Dr Lee

I have now had a chance to discuss your concerns regarding the Jones *et al.* article in the August issue of *Frontiers* with a member of my Editorial Board, and we feel it is best if we invite you to write a letter for publication, stating your case, so that the authors can reply in an official setting. Should you wish to accept this invitation, just to be clear, your letter will be subject to peer review and there is no guarantee of acceptance.

I assume that the letter you wrote to me was not intended for publication. If the letter you submit is to be based on this, it will require extensive rewriting and will then need to be uploaded to our online submission site, which can be reached via the Frontiers website – click on Submit an Article in the top right quadrant of the home page.

Letters for publication in Frontiers need to follow two basic guideline:

First, language used in your letter must be polite and collegial. Phrases such as “significant errors of scholarship”

and “fatal flaws in the data analyses”, and “gross errors of scholarship” must be excluded. Please also omit calls for us to investigate your claims or to retract the paper. Simply state your concerns in a measured scientific manner, without using emotive or accusatory language.

Second, please bear in mind that *Frontiers* has a very broad, general readership, and the vast majority of those readers will not be familiar with all the details of this topic. Please keep the text accessible, avoid jargon, and explain any specialist terminology or concepts.

Finally, I just need to remind you of the 800-word limit.

Please let me know how you intend to proceed

Thanks

Sue Silver PhD

Editor-in-Chief, *Frontiers in Ecology and the Environment*

1990 M Street, NW, Suite 700

Washington, DC 20036

Tel: 202 833 8773, ext 233

Fax: 202 833 8775

Email: suesilver@esa.org

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www.frontiersinecology.org

From: Derek Lee [mailto:derek@wildnatureinstitute.org]

Sent: Thursday, September 08, 2016 12:07 PM

To: Sue Silver; Peter Moorside

[Quoted text hidden]

[Quoted text hidden]

Derek Lee <derek@wildnatureinstitute.org>

To: Sue Silver <SueSilver@esa.org>

Sat, Sep 17, 2016 at 7:32 AM

I will submit a letter.

Thanks,

Derek Lee, Ph.D.
Principal Scientist
Wild Nature Institute

[Quoted text hidden]

FEE Comments 14Aug2016

1 **Megafires Are Not a Threat - Response to Jones et al.**

2 Jones et al. in "Megafires: an emerging threat to old-forest species" (2016; *Front Ecol Environ* **14**[6]:
3 300–306), claim their data describe for the first time, a strong negative impact of severe fire on site
4 extinction rates for spotted owls (*Strix occidentalis*) and significant avoidance of high-severity fire areas
5 for foraging. Unfortunately, the paper has fatal flaws in the data analyses that render their results and
6 discussion unreliable.

7 In spite of the preponderance of evidence supporting the theory that high-severity fire does not pose a
8 serious threat to spotted owl populations (see below), forest management and recovery efforts for this
9 threatened species assume wildfire is a primary threat, and encourage widespread thinning and logging
10 for fuel reduction (often called forest restoration or reforestation) in an attempt to reduce fire severity in
11 forests occupied by the spotted owl (North *et al.* 2015). Thinning activities are known to harm spotted
12 owls by reducing reproduction, and can also reduce survival and site occupancy when conducted in high
13 canopy cover stands (Tempel *et al.* 2014). Recently, the US Forest Service cited Jones *et al.* as
14 justification for clearcutting thousands of hectares of severely burned spotted owl habitat in the Rim Fire,
15 including occupied spotted owl territories (USDA 2016). We believe that Jones *et al.* confused policy-
16 makers and the public when they interpreted their data as supporting the view that fire adversely affects
17 spotted owl populations, and that forest restoration is compatible with owl conservation, because their
18 analyses were inappropriate.

19 First, their owl population has long-term trends of decreasing site colonization and increasing site
20 extinction probabilities (Tempel and Gutiérrez 2013), yet Jones *et al.* did not account for these important
21 trends in their site occupancy analyses. The population is in freefall, yet the authors simply compared
22 their 1 year of post fire data against all previous years without accounting for the known temporal trends
23 in colonization and extinction probabilities.

24 Second, Jones *et al.* used compositional analysis of foraging habitat use, a method that is
25 inappropriate for central place foragers like spotted owls (Rosenberg and McKelvey 1999; Bond *et al.*

26 2009; Bond *et al.* 2016). By omitting the distance-from-center effect and analyzing simplistic ratios rather
27 than resource selection functions, the radiotelemetry results and discussion are unsubstantiated.

28 Third, Jones *et al.* reported extinction for a territory in WebFigure 4 when the owls shifted their
29 location by a distance less than the diameter of a territory as defined by the authors and less than mean
30 foraging distance. This inflated their extinction probability by classifying within-site movement as lost
31 occupancy.

32 Finally, occupied 2014 sites are those most relevant to extinction probability, the main effect Jones *et*
33 *al.* attributed to the King Fire. Computing approximate 2014 occupied site sample sizes from the 2014
34 occupancy rate indicates Jones *et al.* make their claim of large extinction effects from only 8 severely
35 burned sites.

36 Given the analytical shortcomings we described, and the fact that their conclusions contradict eight
37 previous studies on the topic of spotted owls and fire, we suggest the results reported by Jones *et al.* be
38 viewed with caution and not used to justify management actions that harm spotted owls.

39 Spotted owls exist in landscapes with a long evolutionary history of large, severe fire disturbances
40 (Noss *et al.* 2006), and existing data mostly show no serious harm to spotted owl populations from mixed-
41 severity fires with substantial areas of high-severity burn, including megafires. To summarize existing
42 data: spotted owls forage in severely burned, unlogged stands (Bond *et al.* 2009; Bond *et al.* 2016;
43 Comfort *et al.* 2016); breeding site (hereafter ‘site’) occupancy rates are not different between mixed-
44 severity burned and unburned sites (Jenness *et al.* 2004; Roberts *et al.* 2011; Lee *et al.* 2012; but see
45 Tempel *et al.* 2014); and mixed-severity fire does not affect survival or reproduction (Bond *et al.* 2002;
46 Jenness *et al.* 2004; Tempel *et al.* 2014).

47 The only Before-After-Control-Impact (BACI) study with large sample sizes that found negative
48 effects of fire on spotted owl site occupancy comes from 71 burned and 97 unburned sites monitored over
49 9 years in southern California, where forests are drier, and burn more severely than Sierra Nevada forests,
50 providing an example of what a warming climate may induce in the Sierra Nevada. Lee and Bond (2015b)
51 found in higher-quality sites that were consistently occupied and reproductive, the amount of severe fire

52 (even up to 100% high severity burn in the territory core) had negligible effect on occupancy or
53 reproduction. However, in lower-quality sites that were often vacant and non-reproductive, occupancy
54 was negatively correlated with increasing amounts of severe forest fire in the site's core. High-quality
55 sites may have been the type of territories that were 87% pair-occupied after the Rim Fire (Lee and Bond
56 2015a).

57 Additionally, errors of scholarship include:

58 Pg. 304 "The observation that lower-severity fire is benign, and perhaps even moderately beneficial,
59 to spotted owls is consistent with previous studies (Roberts et al. 2011; Lee et al. 2012)"

60 Both those studies found mixed-severity fire (rather than lower-severity fire) had no effect on
61 occupancy. Mixed severity fire is common historically and currently in the Sierra Nevada and explicitly
62 includes low, moderate, and high severity burned patches.

63 Pg. 305, "because owls were not individually marked in the Rim Fire study, some detections at
64 "occupied" sites may have involved individuals from neighboring territories or non-territorial "floaters"
65 (Lee and Bond 2015), both of which may have contributed to inflated estimates of territory occupancy."

66 This exact same situation exists in the data analysed by Jones et al. Data were collected as described
67 in Tempel and Gutierrez (2013), "We included both nocturnal and diurnal surveys in our occupancy
68 analyses." During nocturnal surveys leg bands were usually not resighted, therefore detections at
69 occupied sites would have been similarly inflated by individuals from neighboring territories or non-
70 territorial floaters.

71 **Monica L. Bond and Derek E. Lee**

72 *Wild Nature Institute*

73 *Hanover, NH*

74

75 Bond ML, Gutiérrez RJ, Franklin AB, et al. 2002. *Wildlife Soc B* **30**: 1022–28.

76 Bond ML, Lee DE, Siegel RB, and Ward JP. 2009. *J Wildlife Manage* **73**: 1116–24.

77 Bond ML, Bradley C, and Lee DE. (2016). *J Wildlife Manage* <http://dx.doi.org/10.1002/jwmg.21112>.

- 78 Comfort EJ, Clark DA, Anthony RG, *et al.* 2016. *Landscape Ecol* **31**: 1227-40.
- 79 Jenness JJ, Beier P, and Ganey JL. 2004. *Forest Sci* **50**: 765-72.
- 80 Lee DE and Bond ML. 2015a. *Condor* **117**: 228-36.
- 81 Lee DE and Bond ML. 2015b. *Condor* **117**: 307-19.
- 82 Lee DE, Bond ML, and Siegel RB. 2012. *Condor* **114**: 792-802.
- 83 North MP, Stephens SL, Collins BM, *et al.* 2015. *Science* **349**: 1280-81.
- 84 Noss RF, Franklin JF, Baker WL, *et al.* PB. 2006. *Front Ecol Environ* **4**: 481-87.
- 85 Roberts SL, van Wagendonk JW, Miles AK, *et al.* 2011. *Biol Conserv* **144**: 610-19.
- 86 Rosenberg, D. K., and K. S. McKelvey. 1999. *J Wildlife Manage* **63**:1028-1038.
- 87 Tempel DJ and Gutiérrez RJ. 2013. *Conserv Biol* **27**: 1087-95.
- 88 Tempel DJ, Gutiérrez RJ, Whitmore SA, *et al.* 2014. *Ecol Appl* **24**: 2089-106.
- 89 USDA. 2016. Rim Fire Reforestation Record of Decision. August 2016. USDA Forest Service, Stanislaus
90 National Forest, Sonora, CA.

Sue Silver correspondence re Jones 2



Derek Lee <derek@wildnatureinstitute.org>

Frontiers in Ecology and the Environment - Decision on Manuscript ID FEE16-0294 [email ref: DL-SW-4-a]

11 messages

Frontiers in Ecology and the Environment <onbehalfof+suesilver+esa.org@manuscriptcentral.com> Thu, Oct 13, 2016 at 7:20 PM

Reply-To: suesilver@esa.org
To: derek@wildnatureinstitute.org

13-Oct-2016

Dear Dr. Lee:

We have now received the Associate Editor's and two peer reviewers' comments for your letter, # FEE16-0294 entitled "Megafires Are Not a Threat - Response to Jones et al." which was submitted to Frontiers in Ecology and the Environment.

Unfortunately, both the reviewers and the Associate Editor felt that the letter is not suitable for publication in Frontiers in Ecology and the Environment and it has therefore been decided not to proceed further towards publication. Copies of all the comments, which we hope you will find helpful, are included at the end of this email.

Although there has not been a positive outcome on this occasion, I would like to thank you for giving us the chance to consider your manuscript.

Sincerely,

Sue Silver, PhD
Editor-in-Chief, Frontiers in Ecology and the Environment
suesilver@esa.org

Associate Editor Comments to Author:

Associate Editor Comments to the Author:

The submitted letter by Bond and Lee has been reviewed by two scientists with extensive experience in forestry, fire and owl ecology, and neither reviewer believes that the letter's content is sufficient to warrant publication. Neither reviewer was involved in the publication review process for the original Jones et al. paper.

My own reading of the Jones et al. paper, and comparing their results to the issue raised by Bond and Lee, is that there appears to be a difference among these authors in landscape scale with regard to post-fire habitat quality. Bond and Lee are stating that mega-fires generally leave behind some patches of suitable habitats (unburned or burned with light severity - but not stand-replacement fire), and these patches can still be utilized by owls even though they are embedded in a matrix of higher-severity burned landscape. Jones et al. are making the observation that when stand-replacement fire patches are so large that entire home ranges of owls are included, or that remaining forest patches are too small, then those owls are displaced. Both of these outcomes make sense, depending on the specific habitat situation following any given fire. So the issue here seems to be of landscape scale relative to owl home range size. But if this is correct, then the message does not come out in the letter, and I would think that most readers would have already figured that out.

Thus, as written, the letter offers little new information, and in concurrence with the reviewers, I do not recommend its publication.

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author

Your commentary contributes nothing helpful to our understanding of the ecology of spotted owls or the management of their habitat nor does it provide a credible challenge to the important scientific provided by the original article.

Reviewer: 2

Comments to the Author

I very much support public debate in the scientific arena; indeed, this is how science works. That said, I'm concerned with some aspects of your response to Jones et al.

First, I noted on a number of fronts where you cite literature inappropriately, starting with your very first sentence. I read Noss et al. (2006) and found nothing to support your statement that spotted owls evolved with fire. This is not to say that I disagree with the statement; Noss et al. simply did not state it. This is an example; I can show others.

The evidence you rely on to support your case is largely based on the series of short-term observational studies you've conducted. This is an impressive body of work, but far from definitive. I suggest that the BACI design in Jones et al. offers a unique opportunity for inferring effect of wildfire. I don't think their results are so easily discounted.

I also think you ascend the ladder of inference far too quickly. Whereas Jones et al. suggest that forest restoration might reduce fire risk and benefit owls, you suggest Jones et al. confused policy-makers and the public and provide cover for extensive salvage and thinning. Really?

Again, I support your right to debate the topic. Unfortunately, I don't think you've been effective in doing so.

Derek Lee <derek@wildnatureinstitute.org>
To: monica <monica@wildnatureinstitute.org>

Thu, Oct 13, 2016 at 8:41 PM

Derek Lee, Ph.D.
Principal Scientist
Wild Nature Institute
[Quoted text hidden]

Derek Lee <derek@wildnatureinstitute.org>
To: Sue Silver <suesilver@esa.org>

Fri, Oct 14, 2016 at 9:34 AM

Sue Silver, PhD
Editor-in-Chief, Frontiers in Ecology and the Environment
suesilver@esa.org

Dear Dr. Silver,

Thank you for your reply to our letter # FEE16-0294 entitled "Megafires Are Not a Threat - Response to Jones et al." As the authors of the most peer-reviewed papers about the topics of occupancy and foraging habitat selection of spotted owls after wildfire, we were grievously disappointed with the quality of the reviews regarding our letter. This includes the review by the Associate Editor and both peer reviewers.

None of the reviews addressed a single one of the substantive critiques we made about the methodology in Jones et al. In our original letter to you, and subsequent letter for publication we pointed out serious analytical flaws including: failure to account for long-term pre-existing trends in site colonization and site extinction probabilities; failure to account for distance from center for a central-place forager in the foraging habitat selection analysis; and inflation of

extinction probability by incorrectly reporting extinction for within-site movement. We also noted the small sample size of burned sites occupied immediately before the fire. None of the reviewers mentioned, let alone addressed, any of these fundamental concerns. All three reviewers based all of their comments on vague generalities, and none addressed a single one of the analytical flaws in Jones et al., which leads us to suspect that they do not have sufficient understanding of the statistics to make informed responses.

The analytical flaws in Jones et al. render the results unreliable, one of the COPE criteria for retraction, and the readers of FEE should at the very least be able to read these concerns so they can decide for themselves whether to accept the conclusions of Jones et al. Open debate on the merits of the paper is especially critical because it is being used by land managers as justification for management activities such as widespread thinning and post-fire logging that are directly harming spotted owls (see for example recent Forest Service documentation on post-fire logging projects in the Rim Fire).

Our main problems with the reviews are as follows:

The Associate Editor's review consisted primarily of claiming that differences among studies pertained to "landscape scale." However, we raised concerns about 3 analytical flaws in Jones et al. which had nothing to do with scale, which were ignored by the AE. Our problem was not with inferences but with the basic methodology, which we believe rendered the results unreliable. Furthermore, the spatial scales in Jones et al. and our previous work were nearly identical. Also, the AE clearly misunderstood the main thrust of the literature (pre-Jones et al.) on the topic, which is that high-severity burned forest can be suitable spotted owl habitat.

Reviewer 1 comments provided no evaluation of the analytical flaws we pointed out in Jones et al.

Reviewer 2 comments also provided no evaluation of the analytical flaws we described in Jones et al., but rather focused mainly on critiquing previous research. These comments demonstrated Reviewer 2's lack of familiarity with the actual literature we cited. The reviewer stated our "case is largely based on the series of short-term observational studies ..." Every published study about spotted owls and wildfire is observational, including Jones et al., because of the logistical difficulties of conducting an experiment using wildfire. Furthermore, of the three spotted owl occupancy studies that we have published (Bond et al. 2002, Lee et al. 2012, Lee and Bond 2015b), two were large and long-term BACI studies, one involving 41 burned and 145 unburned sites of 11 years and the other involving 71 burned and 97 unburned sites over 9 years. They also had multiple post-fire years, whereas Jones et al. had only 1 year post-fire.

Reviewer 2 also dedicated one of three response paragraphs to criticizing our use of Noss et al. (2006) to note that fire is natural within the range of the spotted owl. There are numerous studies supporting our statement that spotted owls evolved in landscapes that experienced large, severe fire, and we are happy to provide several more citations or reword this first sentence—this is not a justification for rejecting our letter. The reviewer also said there are other examples of where we cite literature inappropriately, but provides none. As scientists with a long history of research on this topic and thus a deep familiarity with all the studies, we are confident that we did not inappropriately cite or mischaracterize the literature.

The analytical flaws we pointed out mean Jones et al. should have been retracted by FEE or at least rebutted by our letter. We strongly believe that our letter did not receive proper, thoughtful peer review by FEE, which in turn hampers important open scientific debate on this very important issue.

Sincerely,

Derek E. Lee and Monica L. Bond

Wild Nature Institute

Derek Lee, Ph.D.
Principal Scientist
Wild Nature Institute

[Quoted text hidden]

Derek Lee <derek@wildnatureinstitute.org>
To: Peter Mooreside <Peter@esa.org>

Fri, Oct 14, 2016 at 9:36 AM

[Quoted text hidden]

Derek Lee <derek@wildnatureinstitute.org>
To: Sue Silver <suesilver@esa.org>, Peter Mooreside <peter@esa.org>

Thu, Dec 1, 2016 at 7:46 PM

Dear Drs. Silver and Mooreside,

We have not received any reply from you regarding my email of Oct 14 (copied below).

Essentially, we are concerned because the analytical flaws in Jones et al. render the results unreliable, one of the COPE criteria for retraction. None of the peer reviews addressed a single one of the three substantive critiques we made about the methodology in Jones et al., which leads us to suspect that they do not have sufficient understanding of the statistics to make informed responses.

We would appreciate a statement from you addressing this editorial issue.

Sincerely,
Derek Lee

Derek Lee, Ph.D.
Principal Scientist
Wild Nature Institute

----- Forwarded message -----

From: **Derek Lee** <derek@wildnatureinstitute.org>

[Quoted text hidden]

Sue Silver <SueSilver@esa.org>
To: Derek Lee <derek@wildnatureinstitute.org>

Fri, Dec 2, 2016 at 12:22 AM

Dear Dr Lee

I apologize for the delay in replying to your email of the 14th October. I understand that, in the meantime, you have been in contact with the Executive Director and the Publishing Director. As our Executive Director has explained, they do not weigh in on editorial decisions. The decision to reject your letter for publication is mine, and is based on the recommendations of a highly experienced Associate Editor and two carefully chosen experts in the field, all three of whom felt that there are no analytical flaws in Jones *et al.* and that therefore your letter does not warrant publication. That decision is final.

The COPE guidelines give as possible reasons for retraction, unreliable results due to 'misconduct' or 'honest error'. I have looked carefully at the reports of the two original peer reviewers and the Associate Editor and they all found the Jones *et al.* paper to be scientifically sound – there is no suggestion by any of the five individuals

(one Associate Editor and four peer reviewers) who have now considered this matter that the Jones *et al.* results are unreliable and so there is no reason to retract this paper.

Sincerely

Sue Silver

Sue Silver PhD

Editor-in-Chief, *Frontiers in Ecology and the Environment*

1990 M Street, NW, Suite 700

Washington, DC 20036

Tel: 202 833 8773, ext 233

Fax: 202 833 8775

Email: suesilver@esa.org

Follow us on Twitter -  @ESAFrontiers

www.frontiersinecology.org

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Derek Lee <derek@wildnatureinstitute.org>

Fri, Dec 2, 2016 at 1:20 AM

To: Sue Silver <SueSilver@esa.org>, Peter Mooreside <peter@esa.org>

Dear Dr. Silver,

Thank you for your reply. I appreciate the time you have given to this issue. However, in all correspondences to date, none have included even one sentence addressing any of the three methodological problems we pointed out. Ignoring the issues we presented does not confirm the validity of Jones et al.'s results. Until I hear a reasonable rebuttal of the points we raised (not accounting for prefire trends in colonization and extinction, not accounting for distance from center, and calling a within territory shift an extinction), I will maintain the claim of unreliable results. If retraction is not an option, I request you reconsider printing our commentary letter. I would be grateful if you could point out anywhere in the reviews of our commentary letter where any of the methodological issues we raised were addressed.

Thank you very much for your assistance,

Derek Lee

[Quoted text hidden]

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[Quoted text hidden]

Sue Silver <SueSilver@esa.org>

Mon, Dec 5, 2016 at 1:14 AM

To: Derek Lee <derek@wildnatureinstitute.org>

Dear Dr Lee

Following your email of December 1st, I requested specific responses to the three points you raised, and have pasted

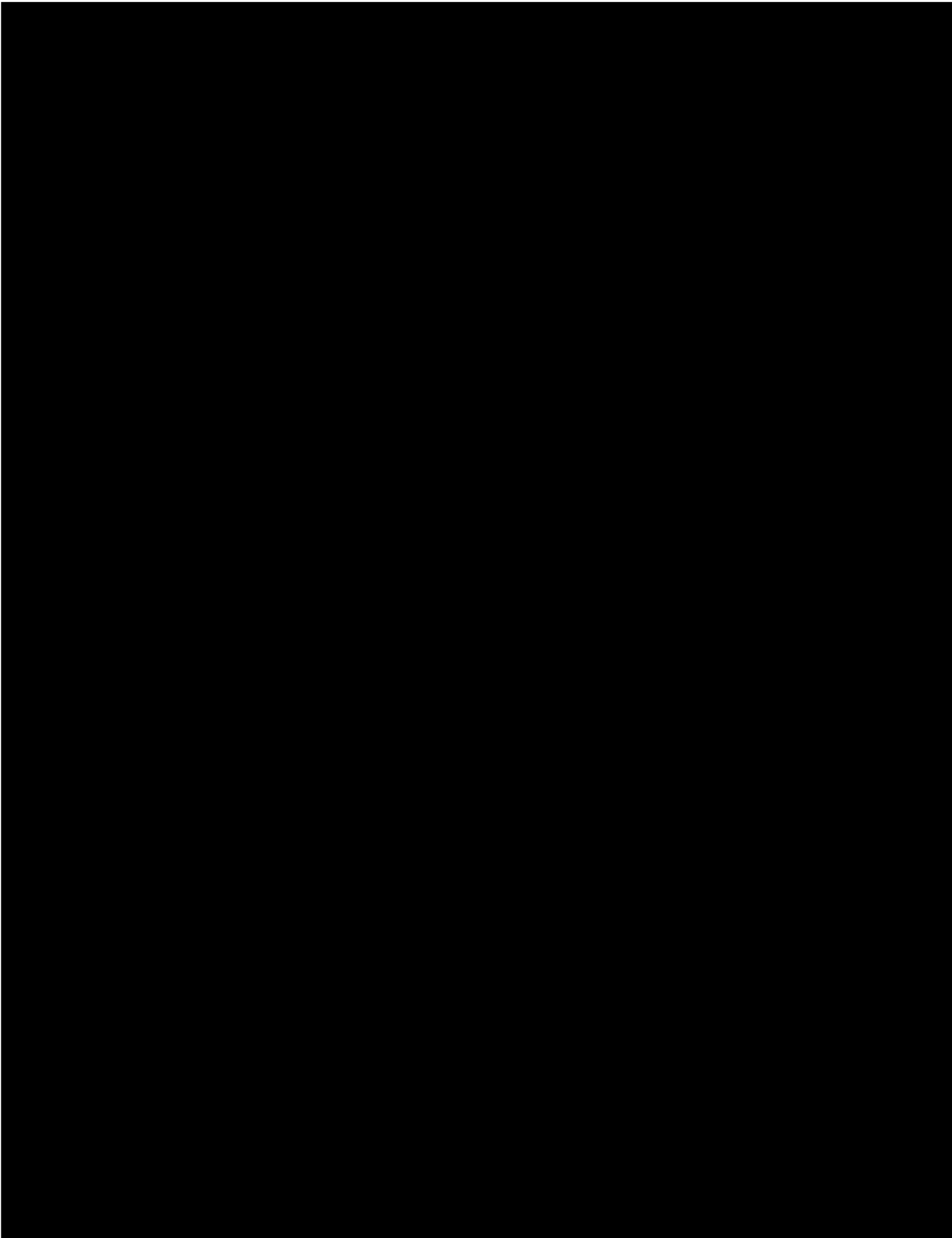
the reply I received below. However, please let me make one thing clear. This is not the beginning of a debate between yourself and the reviewer, so please don't respond to the points made here. You had asked for a rebuttal to the three points you were concerned about and this has now been provided. As the Editors of old used to say, "this correspondence is now closed".

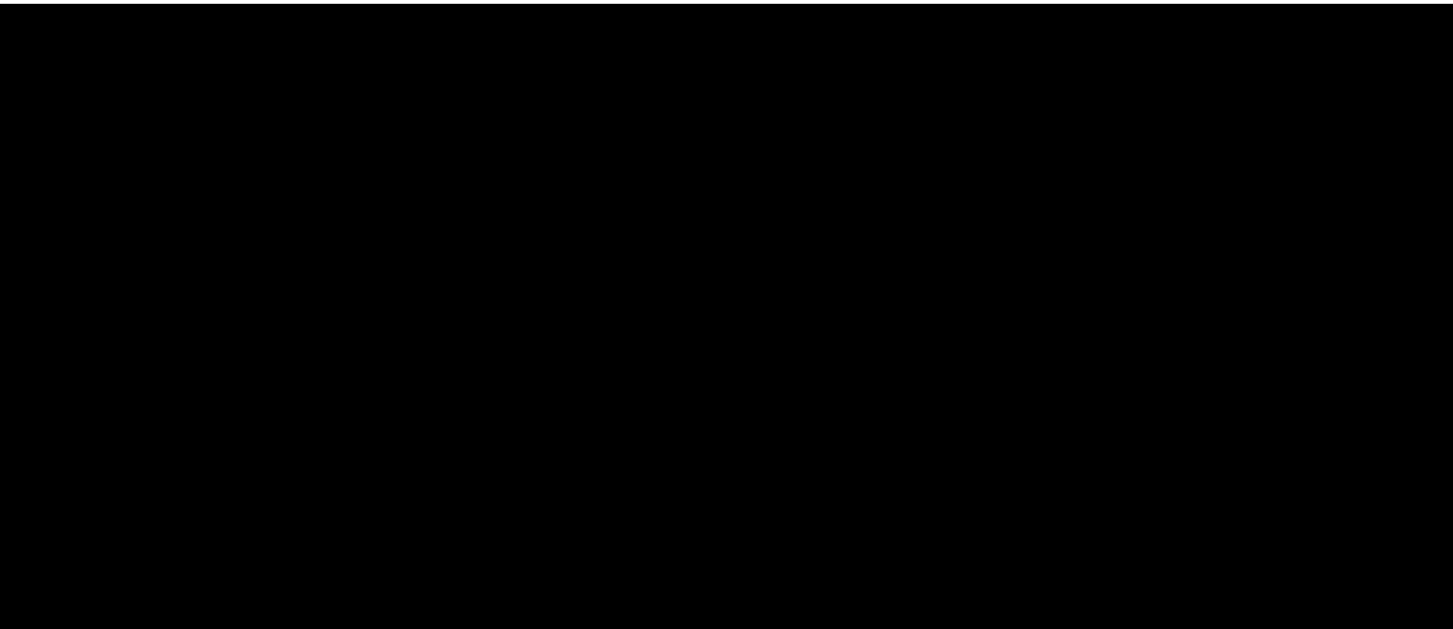
Sincerely

Sue Silver

1. Failure to account for long-term pre-existing trends in site colonization and site extinction probabilities: Jones et al. provide the long term trend data of site occupation in Fig. 3e, and were incorporated into their analyses as described on page 302 (bottom of left text column). These data show a decline in occupancy proportion, followed by several years of stabilization, then concluding with a drop following the fire. See text on page 304: "The King Fire exacerbated a longer- term decline in spotted owl occupancy within our study area. The proportion of occupied spotted owl sites declined by 43% over a 22- year period leading up to the 2014 King Fire ($\hat{\psi}_{1993} = 1.0$, standard error of the mean [SE] = 0.0; $\hat{\psi}_{2014} = 0.57$, 95% CI = 0.41–0.73) (Figure 3e). After the King Fire, occupancy dropped from 0.57 to 0.44 ($\hat{\psi}_{2014} = 0.57$, 95% CI = 0.41–0.73; $\hat{\psi}_{2015} = 0.44$, 95% CI = 0.29–0.60) following ~7 years of relatively stable occupancy (Figure 3e). The 22% decline in site occupancy after the fire ($\lambda_{2015} = 0.78$, 95% CI = 0.53–1.03) was the greatest single- year decline recorded over our 23- year study period (Figure 3f)."
2. Failure to account for distance from center for a central-place forager in the foraging habitat selection analysis: Jones et al. use the approach of Bond et al. in their selection of activity center and foraging habitat (see page 303): "... using a circle with the center equal to the geometric mean of 2015 nest tree, roosts, and daytime capture locations (ie "activity center") and a radius equal to the 95th percentile of linear foraging distances from the activity center (similar to Bond et al. 2009)."
3. Inflation of extinction probability by incorrectly reporting extinction for within-site movement: This criticism applies to a single owl home range, and is debatable as to how the shift in habitat use shown by this owl pair should be classified with respect to burned forest. Jones et al. chose to classify the territory as "extinct" given that the owls did not use the burned portion of the territory; this approach certainly seems reasonable given the overall question being addressed by the article.

Sue Silver PhD
Editor-in-Chief
Frontiers in Ecology and the Environment
1990 M Street, NW, Suite 700
Washington, DC 20036
Tel: 202 833 8773, ext 233
Fax: 202 833 8775
Email: suesilver@esa.org





Derek Lee <derek@wildnatureinstitute.org>
To: Sue Silver <SueSilver@esa.org>
Cc: KSM@esa.org, steve@esa.org

Mon, Dec 5, 2016 at 6:55 PM

Thank you Dr. Silver, for finally and conclusively proving that you and the reviewers lack the statistical knowledge to judge this paper's veracity.

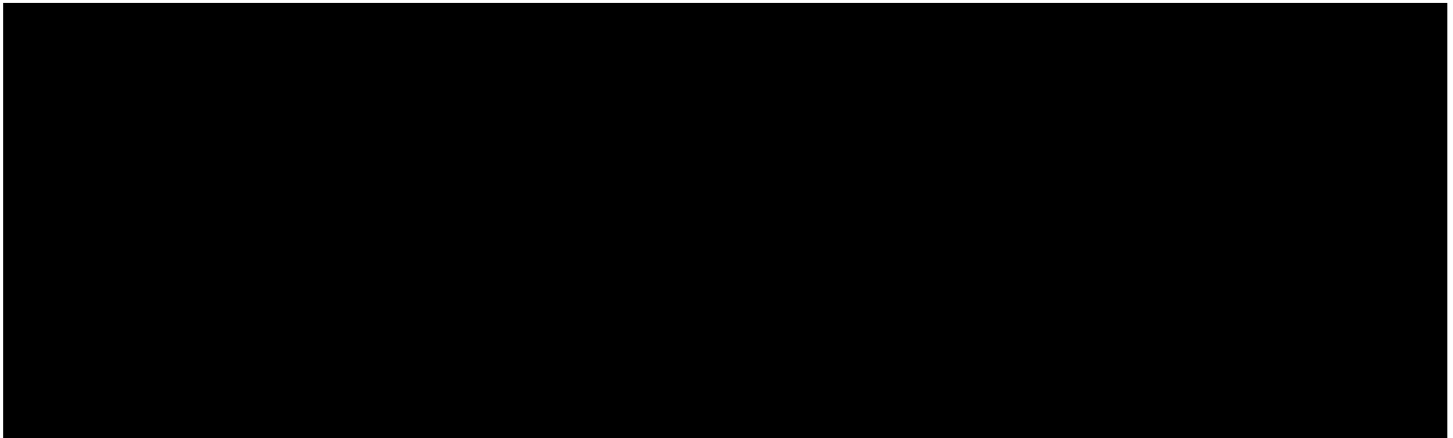
This has been an illuminating experience of peer-review failure.

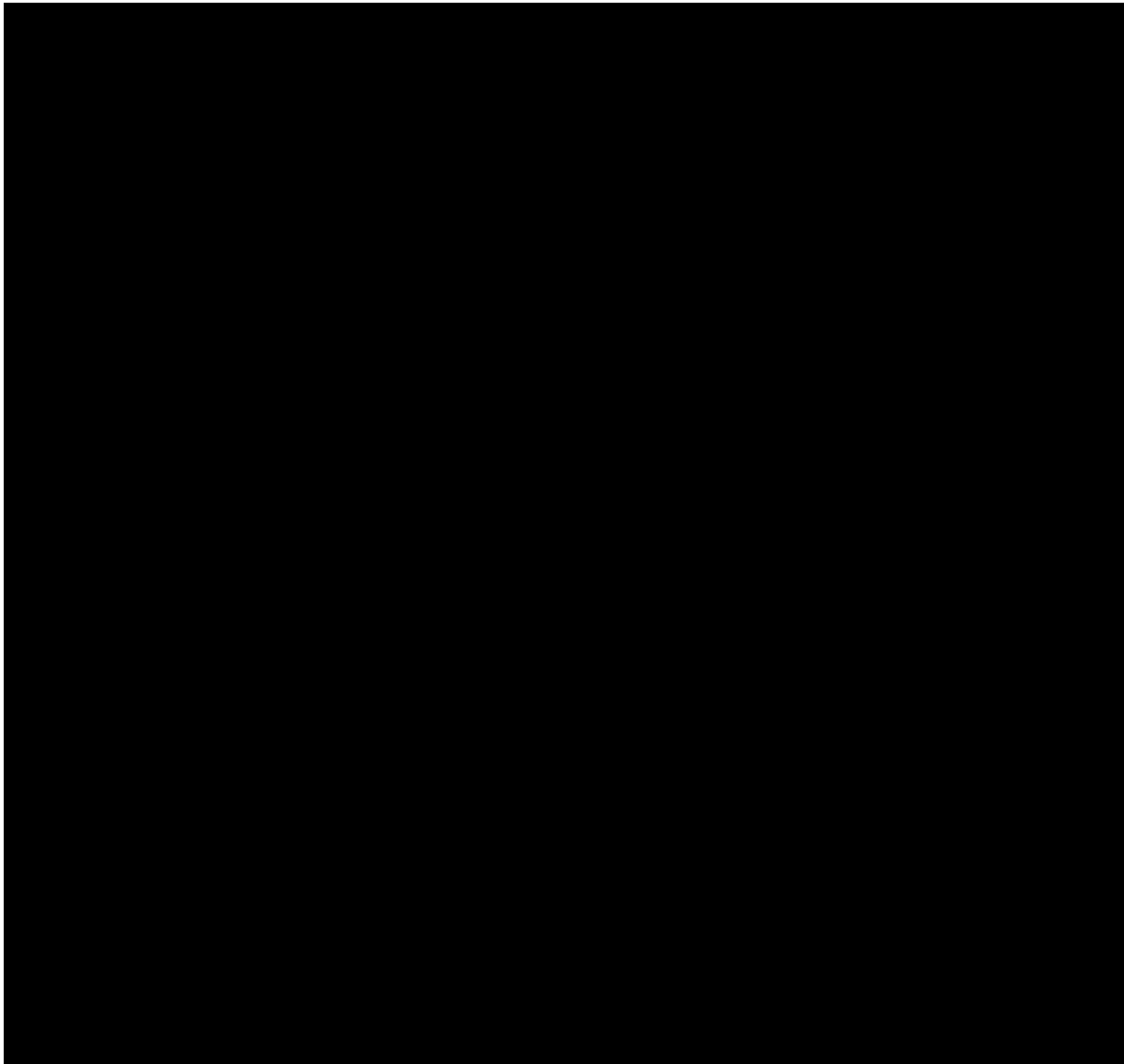
I agree, this correspondence is closed. You will not hear from me again.

Sincerely,
Derek Lee

Derek Lee, Ph.D.
Principal Scientist
Wild Nature Institute

[Quoted text hidden]





S Eyes 1



Monica Bond <monibond@gmail.com>

Re: Spotted Owls and Fire

4 messages

Stephanie Eyes <sae202@humboldt.edu>
To: monibond@gmail.com

Sun, Dec 11, 2011 at 10:29 PM

Hi Monica-

Thanks for getting back to me. I will just give you a call on Thursday (December 15) after my finals are all over. Doug gave me your phone number, but I thought I'd check with you since you said you will be on the east coast to find out what is the best number to reach you at.

I look forward to speaking with you about your experiences working with owls and at Humboldt. There's some pretty interesting work going on around this area now with the spotted owl and barred owl removal experiments.

Thanks again for making yourself available to discuss your research with me.

Stephanie

Monica Bond <monibond@gmail.com>
To: Stephanie Eyes <sae202@humboldt.edu>

Fri, Dec 16, 2011 at 3:06 AM

Hi Stephanie,

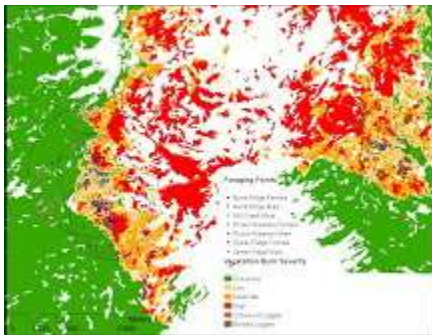
Here are some of the papers as well as the GIS map with our foraging locations on it to give you an idea of the patch sizes and where our sample of foraging locations were. I would appreciate if you would not share the map with others.

Nice talking with you today and I look forward to hearing the results of your study. Good luck with the funding.

-Monica Bond

[Quoted text hidden]


5 attachments




foraging_ranges_points_burn_severity.jpg
878K

 **Peery et al 2011 Climate change and spotted owls.pdf**
464K

 **Donato et al 2009 conifer regen.pdf**
1705K

 **Donato et al 2006 conifer regen.pdf**
73K

 **Donato et al 2009 short interval burn.pdf**
535K

Stephanie Eyes <sae202@humboldt.edu>
To: Monica Bond <monibond@gmail.com>

Tue, Dec 20, 2011 at 11:06 PM

Hi Monica-

Thanks so much for chatting with me last Thursday. I appreciate you sharing your thoughts on high-severity fire as well as providing insight into potential analyses methods for me. I will definitely be contacting you again as I get closer to that portion of my thesis.

I also will not share the map with anyone and I appreciate you sending it along to me.

I'm attaching my literature cited lists and if you have time before you leave for Africa, it would be great if you could just glance over the owls and fire sections and see if I am missing any crucial papers. I have a lot of papers about fire that I downloaded for my fire behavior and the upcoming fire ecology class that I'm taking next semester and/or the possible fuels management class I may take; hence all the fire papers.

Thanks for passing along those other papers. I'm excited to read the Donato papers and see what that was all about.

Thanks again and enjoy your holiday with your family in North Carolina!

Stephanie
[Quoted text hidden]

2 attachments

 **GrandLitCited_PapersForThesis_NotReadYet.docx**
203K

 **GrandLitCited_PapersForThesis.docx**
235K

S Eyes 2



Monica Bond <monibond@gmail.com>

congrats on your study

2 messages

Monica Bond <monibond@gmail.com>

Tue, Feb 11, 2014 at 9:34 AM

To: Stephanie Eyes <sae202@humboldt.edu>

Hi Stephanie,

I work on spotted owls and fire, and if you recall we spoke back in December 2011 about your study and I sent you some papers and some of my data from the Sequoia National Forest study that I conducted with Institute for Bird Populations.

I heard that you gave a presentation of your research at the TWS meeting (I saw the abstract). My colleague Rodney Siegel told me you did a great job! I wanted to say congratulations on finishing and I would love a copy of your thesis when you are finished, and also if you can remember I would love to see the manuscripts that you publish. As you know this is a topic of great interest to me.

Also, your adviser at Humboldt, Matt Johnson, is a friend of my husband. They are both from the same small town!

Very best,

Monica Bond

Stephanie A. Eyes <Stephanie.Eyes@humboldt.edu>

Tue, Feb 11, 2014 at 9:08 PM

Reply-To: Stephanie.Eyes@humboldt.edu

To: Monica Bond <monibond@gmail.com>

Hi Monica-

Thanks so much for getting in touch again. I talked to your colleague Rodney Siegel after the session and about his poster presentation on black-backed woodpeckers later that evening. I told him how great it was to talk to you and how helpful you were when I started to think about my research/analysis and hoped you and your husband were doing well in Africa with the research on the giraffes.

It was really great to give a presentation at TWS, although I was incredibly nervous and sick with a cold at the time. Unfortunately my abstract was different from the talk I gave since I didn't have all my fire severity layers and also used a different home range method. TWS western section wanted me to give a presentation since they gave me a scholarship towards the research so I just put something together from incredibly preliminary results so I could submit back in October. My adviser and I actually decided to switch to using MCP as the home range method since we found more and more papers advocating use of that in use-availability studies versus home range size studies.

I will be certain to get a copy of my thesis and any manuscripts because Susan Roberts (my non-faculty adviser) certainly wants us to publish this information. I've read all the other papers that came out of the research you did in the southern Sierras and also found some other studies on the Northern spotted owl. I'll attach a thesis I just found (of course after the conference) but sometimes it's not quite as easy to find the unpublished theses as published papers. It was from December 2013 from a PhD student at OSU. You may have already seen it, but just in case I will attach it anyway. I kind of wish she had presented too at the TWS conference. Claire Gallagher, a PSW researcher/former UC Davis grad student, also presented her research with John Keane in the same session as mine. She said she is working on a manuscript, so perhaps be on the lookout for that is well in the upcoming year.

In other news, I will be working in Yosemite again with Sarah Stock and NPS, and was excited when I found out that your colleagues Rodney Siegel and Joanna Wu will also be involved. I'll be switching owl species to work with great gray owls in the Park, so I think it will be an interesting change for me. Currently I'm working with fishers on the Sierra National Forest, so just trying to get more overall experience working with different animals.

And that is so interesting that your husband and my adviser are from the same town! Because I also recall both of us being from Connecticut.

Good luck and I hope to meet you at some point in the future at a conference

Stephanie

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ComfortEmilyJ. 2014. Trade-offs Between Management for Fire Risk Reduction and Northern Spotted Owl Habitat Protection in the Dry Conifer Forests of Southern Oregon.pdf

2876K

RGutierrez1



Monica Bond <monibond@gmail.com>

spotted owl post-fire occupancy analysis

21 messages

Monica Bond <monibond@gmail.com>

Thu, Dec 9, 2010 at 8:49 PM

To: Rodney Siegel <rsiegel@birdpop.org>, Rocky Gutierrez <gutie012@umn.edu>, Douglas Tempel <temp0059@umn.edu>

Hi Rocky, Doug, and Rodney,

Derek and I have been revisiting and updating our owl occupancy database and we think we have some interesting and useful data to proceed with our analysis on post-fire and post-salvage logging occupancy rates (and comparing with unburned territories from the demography study). We think we can do some occupancy modeling as well as a power analysis. Are you guys still interested in working on this with us?

Derek and I will be able to delve into this early in the new year.

Hope all is well and that you Minnesotans aren't freezing your buns off like we are here in New Hampshire...

-Monica Bond

Rocky Gutierrez <gutie012@umn.edu>

Fri, Dec 17, 2010 at 1:35 AM

Reply-To: gutie012@umn.edu

To: Monica Bond <monibond@gmail.com>

Cc: Rodney Siegel <rsiegel@birdpop.org>, Douglas Tempel <temp0059@umn.edu>, Zach Peery <mpeery@wisc.edu>, Mark Seamans <Mark_Seamans@fws.gov>

Dear Monica:

Thanks for your recent message on 9 December. I have been preparing a talk for the TWS Midwest Section meeting in Minneapolis this week and was a panelist for a workshop, hence my short delay in responding to your message.

Subsequent to our data sharing agreement over 2 years ago, several factors have risen that effectively precludes our continued participation in this project. This is regrettable as I looked forward to working with you again. I explain below these circumstances so that will understand why we are declining further participation.

1. We have signed a "neutrality agreement" with the MOU partners associated with the Sierra Nevada Adaptive Management Project. Essentially, this means that use of Eldorado and SNAMP data in a way that could be perceived as conflicting with USFS management or antagonistic to them would be perceived as a violation of the agreement.

The document has much "gray area" so a fire/owl occupancy analysis would not necessarily by itself be a violation of the agreement, but I think the source of some of the data could be perceived as somewhat antagonistic to the USFS. That is, it is my understanding that some of the data you will use was obtained using a FOIA request, which sometimes is perceived as antagonist to the recipient. I was not aware at the time I signed our agreement 2 years ago that this was the case.

2. In terms of the data sharing agreement, I assumed the agreement was no longer in force when you sent an email to us stating that the project was no longer being considered because of the reluctance of a USFS researcher to cooperate. Thus, I made other commitments to people regarding use of the owl data. The biggest one is that I am in the process of transferring the control of the Eldorado study to Dr. Zach Perry at the University of Wisconsin. You will recall Zach, by name, as having worked on the Eldorado in the 1990s. Zach has a PhD student working on the Eldorado project and he is concerned that any use of Eldorado data might limit her options for a dissertation topic.

3. Doug's dissertation on owl occupancy has taken unexpected turns and we think that it is possible depending on how one approaches a fire/owl occupancy analysis that your proposed study might conflict with some of his new

approaches. We do not know those for certain, but it is just one of several issues of concern.

4. It seems to me that given you are using data from the USFS that comparing our data to theirs might be problematic because of differences in sampling effort etc. So perhaps a better strategy for you would be to compare their fire/owl occupancy data to their simple owl occupancy data (i.e., owl sites not impacted by fire)?

It is for these reasons, that I, and on behalf of Doug and Zach, decline further participation in your occupancy analysis. I will always consider you one of us, Monica, so I am sorry we cannot help anymore. I wish you the very best of luck in this endeavor.

Sincerely,

Rocky

[Quoted text hidden]

Monica Bond <monibond@gmail.com>

Fri, Dec 17, 2010 at 5:01 PM

To: gutie012@umn.edu

Cc: Rodney Siegel <rsiegel@birdpop.org>, Douglas Tempel <temp0059@umn.edu>, Zach Peery <mpeery@wisc.edu>, Mark Seamans <Mark_Seamans@fws.gov>, Derek Lee <1dereklee@gmail.com>

I understand completely, Rocky. Derek, Rodney and I will proceed with our occupancy analyses using just the Forest Service data. I'll be sure to keep you apprised of our findings. Good luck Rocky, Zach, and Doug on your continuing demography study research.

Just as a quick clarification about the existing data I have - I started requesting all of these data individually from all the relevant Ranger Districts back in 2005, and then I received a call from the Regional Office actually requesting that I send them a FOIA to obtain the data. This was because they wanted to collate and give me these survey data in a controlled, organized way from one source (regional office) rather than from each ranger district. Hence, it was not an antagonistic FOIA at all - I actually regret doing it this way if it now gives the impression that this was antagonistic on my part. I was in communication with the district biologists with questions, etc and they were all very nice and willing to help me. I actually feel like I owe it to them to do this analysis because they worked hard to get me these data (and to conduct the surveys!) so I am going to proceed the best I can with what I have. Also, the reluctance from John Keene to join us on this effort was understandable because he he is doing a similar analysis already with the Moonlight data. I let him know that I understood his decision to join us (even though I could have sent a FOIA for his data, too. However, I think we have some good data in that many of our sites were not salvage-logged but the Moonlight area was heavily logged on private lands near most of the owl sites.

Anyway, again I totally understand your feeling on this. We do have a decent number of unburned 'non-demography' comparison owl sites we can use, and again I'll keep you apprised of our results.

Stay warm and have a great holiday season.

-Monica

[Quoted text hidden]

-Moni

[Quoted text hidden]

Rocky Gutierrez <gutie012@umn.edu>

Fri, Dec 17, 2010 at 6:09 PM

Reply-To: gutie012@umn.edu

To: Monica Bond <monibond@gmail.com>

Cc: Rodney Siegel <rsiegel@birdpop.org>, Douglas Tempel <temp0059@umn.edu>, Zach Peery <mpeery@wisc.edu>, Mark Seamans <Mark_Seamans@fws.gov>, Derek Lee <1dereklee@gmail.com>

Monica:

Thanks for being so understanding with our position. Regarding the FOIA, it is indeed unfortunate that they requested you to submit a FOIA because they (USFS) have no "institutional memory" and this results in later people who assume positions in the USFS that this was hostile. This is a lesson learned, I guess in the future perhaps a better strategy would be to develop an MOU between you and the USFS for compilation of the data and data sharing. This would allow them to collect the data in an organized fashion and have it come from a central source without the odious specter of a FOIA.

Thanks for your Christmas card. I am late this year with my cards given the Midwest preparation. I can't believe you think it is cold at Dirtmouth! You have warm weather compared to Minnesota. You will find that when the temperature hits 30 degrees in spring you'll be looking for your tee shirts and shorts!

Rocky

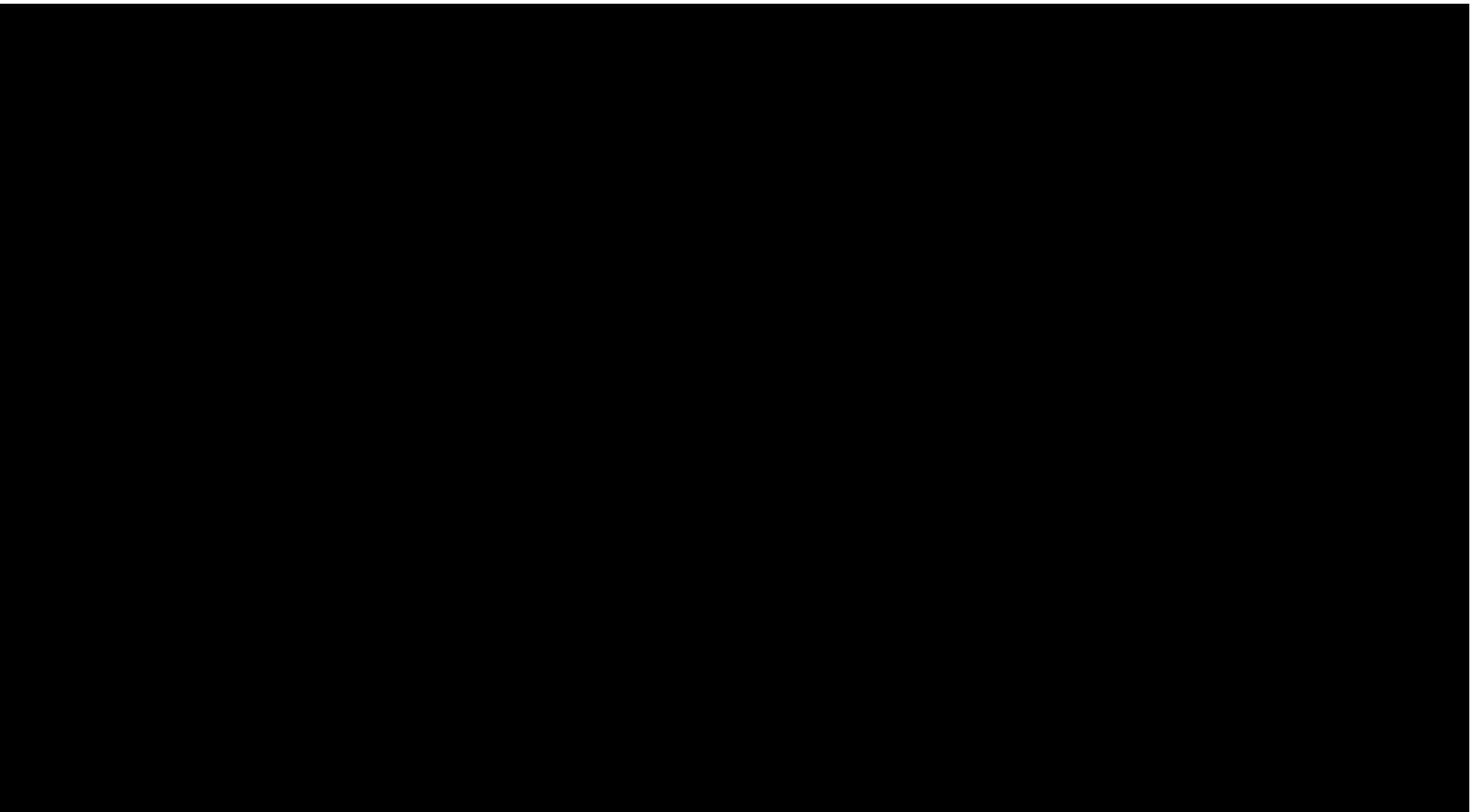
[Quoted text hidden]

Monica Bond <monibond@gmail.com>

Fri, Dec 17, 2010 at 6:19 PM

To: gutie012@umn.edu

Lesson learned. I didn't want to do it as a FOIA in the first place as I had good relationships with all the district biologists and they supported the effort after I explained to them what I wanted to do. I truly feel like I owe it to them to do the analysis after all their help. We will all just have to keep plugging away to get good research done and proper management accomplished, whether from within the Forest Service structure or without.



Keane1



Monica Bond <monibond@gmail.com>

Use of PSW California Spotted Owl-Wildfire Research Data

2 messages

Keane, John -FS <jkeane@fs.fed.us>

Thu, May 28, 2015 at 1:30 AM

To: "derek@wildnatureinstitute.org" <derek@wildnatureinstitute.org>, "monica@wildnatureinstitute.org" <monica@wildnatureinstitute.org>, "cthanson@gmail.com" <cthanson@gmail.com>, "jaugustine@biologicaldiversity.org" <jaugustine@biologicaldiversity.org>

Cc: "Manley, Pat -FS" <pmanley@fs.fed.us>, "Keane, John -FS" <jkeane@fs.fed.us>

Dear Dr. Lee, Ms Bond, Dr. Hanson and Mr. Augustine:

I am contacting you to discuss an issue that has arisen in regards to our current California spotted owl-wildfire research in the Sierra Nevada. The USDA Pacific Southwest Research Station has been conducting research to assess the response of owls to wildfire and salvage logging, primarily on the Moonlight-Antelope, Chips, and Rim Fires. We currently have a post-doc working on these data to assess the immediate 1-2 year response of owls to fire and salvage logging. Lee and Bond (2015) recently published a paper on our data from the first year of surveys from the Rim Fire. I am uncertain if Dr. Lee and Ms. Bond were aware that these data were part of a PSW research project, and we did not expect the data to be published since the information request came from the Center for Biological Diversity and in regard to the salvage logging EIS. As you might imagine, we were surprised and disappointed that the data were used without checking with the National Forest as to if there were any conflicts with publishing the data. We have had a study plan in place since 2013, and we are now in the course of collecting the second year of survey data in the Rim fire. It is our intention is to analyze the data and publish the results in a peer-reviewed journal. I understand the social, political, and ecological significance of our research and the need to bring our data to bear on related management decisions. Professional ethics dictates that we have the first right to publish data from our research, and we have a post-doc researcher working on these data at the current time. PSW is the steward of all the survey data for 2014 and 2015. We hope that this letter establishes and clarifies the primary role of PSW in this research effort, and I am requesting as professional courtesy that you respect our first right to publish these data given our investment in the research. Thanks and please contact me directly if you have any questions or requests.

Sincerely,

Dr. John Keane



John J. Keane

Research Wildlife Ecologist

Conservation of Biodiversity

Forest Service

Pacific Southwest Research Station

p: 530-759-1704
c: 530-902-3152
f: 530-747-0241
jkeane@fs.fed.us

1731 Research Park Dr.

Davis, CA 95618

www.fs.fed.us



Caring for the land and serving people

Keane, John -FS <jkeane@fs.fed.us>

Wed, Jul 1, 2015 at 11:54 PM

To: Monica Bond <monica@wildnatureinstitute.org>

Cc: "derek@wildnatureinstitute.org" <derek@wildnatureinstitute.org>, "cthanson@gmail.com" <cthanson@gmail.com>, "jaugustine@biologicaldiversity.org" <jaugustine@biologicaldiversity.org>, "Manley, Pat -FS" <pmanley@fs.fed.us>, "Keane, John -FS" <jkeane@fs.fed.us>

Dear Ms. Bond and Dr. Lee,

Thank-you for your response in regards to owl research in the Rim Fire area. It appears miscommunication was at the core of the confusion regarding use of the data from our first year of post-fire surveys. We are currently conducting a second year of surveys and plan to publish our results following this second field season.

In the spirit of avoiding any further confusion regarding data use from ongoing PSW owl-fire research here is an overview of the two additional papers we are working on in addition to the Rim Fire. These papers constitute the post-doc research project of Dr. Rahel Sollmann, a post-doc working with us at PSW-Davis. We have two analyses under way. Both are based on post-fire owl survey data collected solely by PSW within or in close proximity to our long-term demographic research on the Lassen-Plumas National Forests. The first project is investigating the effects of fire and salvage on owl survival in the Chips and Rich Fires, and part of the Cub-Onion, where we have at least 10 years of pre-fire data on marked individuals in these areas. The second project is using dynamic occupancy modeling to assess the effects of fire and salvage on owls within the Moonlight-Antelope, Cub-Onion, Rich, and Chips Fires as compared to patterns observed in our demography study. Please contact me if I can answer further questions, but hopefully this is adequate to avoid any potential conflicts regarding use of data collected by PSW.

We initially planned to publish our results from the Moonlight-Antelope Fire but ran into problems because of delays in receiving delivery of vegetation maps from a contractor that impeded our research on the fire, as well as across the broader HFQLG area. We have worked around that issue and now are working on an analysis that summarizes all of our owl-fire research across the above mentioned fires in the northern Sierra Nevada.

I agree studies are needed to separate the effects of fire and salvage. You are not the only biologists who have advocated for such studies. I anticipate that our research and additional work being conducted on other fires within

the range of the California spotted owl may further highlight this need.

Thank-you again for responding to this issue. Please contact me if you would like further discussion of our work on the three projects we are conducting or related to owl-fire issues.

Sincerely,

Dr. John Keane



John J. Keane

Research Wildlife Ecologist

Conservation of Biodiversity

Forest Service

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Caring for the land and serving people

From: Monica Bond [mailto:monica@wildnatureinstitute.org]

Sent: Sunday, June 14, 2015 4:08 AM

To: Keane, John -FS

Cc: derek@wildnatureinstitute.org; cthanson@gmail.com; jaugustine@biologicaldiversity.org; Manley, Pat -FS

Subject: Re: Use of PSW California Spotted Owl-Wildfire Research Data

Hello Dr. Keane,

Thank you for your informative email about your research project on the Rim Fire. We are responding to clarify our activities.

In the summer of 2014, the Center for Biological Diversity and John Muir Project shared with us occupancy survey data forms from the Rim Fire that they had requested and obtained from the Stanislaus National Forest. This was part of a group effort to address the enormous area of salvage logging proposed by the USFS that we knew would cause harm to this imperiled subspecies of spotted owl as well as many other species.

As you know, we (Monica Bond and Derek Lee) have used USFS occupancy survey data in the past to estimate occupancy in burned vs unburned owl sites, published as Lee et al. 2012 and 2013. Typically, those field data forms from USFS surveys conducted prior to management actions are filed away after the management action has taken place, and are not used in any scientific analyses. We think these data are an important underused resource that should be utilized to inform management. When we requested USFS field survey forms for our previous 2 studies, we received the blessings of the local Forest biologists, and in one case we were specifically asked by the Forest biologist to analyze their occupancy surveys for them as they lacked the expertise to do so. We hoped these data could affect management actions rather than be collected as a meaningless administrative step prior to logging sales. We believed the same situation was in effect in the Rim Fire. With regards to your specific research areas, we understood you were overseeing the Plumas/Lassen and Sierra/Sequoia-Kings Canyon demography studies and did not realize you were working in the Rim Fire area as well. When we contacted you in 2008 for potential collaboration, you informed us that you were conducting post-fire research on the Moonlight-Antelope Fire on the Plumas, but we have not seen those data analyzed and published.

We estimated occupancy rates from the Rim Fire survey forms and presented the data to the USFS in a supplementary letter opposing the logging project, as part of our efforts to show high occupancy by owls and to protect them from the damaging effects of the proposed salvage logging. Never during the NEPA process did the Stanislaus inform us or CBD or JMP that anyone else was already analyzing these specific data in regard to post-fire occupancy. We thus conducted such an analysis on behalf of CBD and JMP because we all believed that it would not occur otherwise and because time was of the essence in regard to imminent logging. The Stanislaus' final Record of Decision not only failed to provide any occupancy analysis from the USFS, it also dismissed our occupancy analysis that we presented by stating "the comment letter relies upon extensive analysis of site occupancy was not subject to peer review." In the interest of protecting owl habitat in a timely fashion given the imminent logging, and in light of the actions and statements from the USFS, we felt compelled to publish our results in a peer-reviewed journal so the public and other decision-makers could be made aware of the high occupancy rates in this post-fire area. This paper was also time sensitive because of other imminent post-fire logging projects in the Sierra Nevada and because, in general, the USFS was justifying post-fire logging without properly addressing post-fire occupancy.

We had no intention whatsoever to undermine your study—we truly were unaware of your research on the Rim Fire up until the point we received this email from you, and when the survey forms were requested, the Stanislaus did not tell us these data were part of any specific study. In fact, their actions suggested very much the opposite—that these data were not being used to educate the public or decision-makers in a timely manner and were instead being largely ignored. It is unfortunate that the USFS is continuing with its plans to extensively salvage log in occupied spotted owl habitat in the Rim Fire. The USFS has had ample opportunity to study the effects of salvage logging on spotted owls (e.g. many logged owl sites in the Moonlight-Antelope Fire, for which robust analyses have never been published, as well as numerous other salvage-logged owl sites from other fires). What is needed—and we have asserted repeatedly in our comment letters and publications—is research on the effects of wildfire in the absence of salvage logging. This has never been done, and the Rim Fire was a perfect opportunity to examine this critical question. We are disappointed that we are the only spotted owl biologists who have spoken up about this pressing research need, and who have opposed salvage logging so that the scientific community can study the short- and long-term effects of wildfire itself on owls.

It would be beneficial to everyone to maintain open communications to avoid any future misunderstandings such as this. In that light, we would appreciate receiving a synopsis of your ongoing research and plans regarding spotted owls and fire.

Sincerely,

Monica Bond and Derek Lee

Wild Nature Institute

[Quoted text hidden]

GJones1



Monica Bond <monibond@gmail.com>

Re: Your Frontiers paper

2 messages

Gavin Jones <gjones3@wisc.edu>

Thu, Jun 9, 2016 at 5:11 PM

To: Monica Bond <monica@wildnatureinstitute.org>

Wow, very cool! Yes, please send that my way as well when it is ready, I look forward to reading it.

We'll be in touch.

-G

On Thu, Jun 9, 2016 at 12:17 AM, Monica Bond <monica@wildnatureinstitute.org> wrote:

Sure thing, I would be happy to do that.

I have a foraging paper (SoCal spotted owls in fire) that is current in press in JWM as well. I can send that to you when it is ready.

Thanks so much,
Monica

On Wed, Jun 8, 2016 at 7:06 PM, Gavin Jones <gjones3@wisc.edu> wrote:

Hi Monica,

Of course I understand. You will be one of the first recipients when I get the proofs.

By the way, I was until now unfamiliar with the Elsevier reference modules and I now realize that (somewhat surprisingly) the UW-Madison library does not currently subscribe to them, and therefore I cannot gain access. Could you also send me your paper once it is "out there"? As I said before, such a synthesis is overdue I look forward to reading it very much.

Very best,
Gavin

On Wed, Jun 8, 2016 at 1:00 AM, Monica Bond <monica@wildnatureinstitute.org> wrote:

Hi Gavin, I was thinking that I would prefer not to discuss your paper in the literature review unless I can actually read it myself. I'm sure you understand. So I will update my module once your paper is available.

Thanks! I would really appreciate if you could send it to me when it is ready so I can move on it right away.

Moni

On Fri, Jun 3, 2016 at 3:17 PM, Gavin Jones <gjones3@wisc.edu> wrote:

Monica - very cool that you're out in Tanzania. Must be incredible there. I'm still riding the high of being in the field - just got back from Blodgett after spending a few weeks deploying this year's round of GPS tags.

Of course I can talk over Skype. Why don't you let me know when you get back and we can set something up. My Skype name is *gjones3wisc*.

-Gavin

On Fri, Jun 3, 2016 at 12:58 AM, Monica Bond <monica@wildnatureinstitute.org> wrote:

Hi Gavin, I totally understand. I am currently in the field in Tanzania doing giraffe research, but I should be back in town in about a week. Perhaps we could talk via Skype?

Also I believe the reference module is update-able so I would be able to insert your information, perhaps even a graphic from your paper, at any time. It would still be best to get it in there before it goes live, though.

On Jun 2, 2016 5:43 PM, "Gavin Jones" <gjones3@wisc.edu> wrote:

Greetings Monica,

Thanks for contacting me. I don't remember exactly how (probably Rocky), but I had heard through the grapevine that you were undertaking a review of fire-owl research. I am very much looking forward to seeing it. Lots of great recent work on owls-fire-salvage (a large share by you and Derek) and a synthesis is needed. Glad to see you're spearheading the effort.

Unfortunately *Frontiers* has an incredibly strict embargo policy for manuscripts that have not been released. So strict that, in fact, we have not yet passed along a copy of the manuscript to our funding agencies (e.g. USFS). We do expect it to become available within the month, given that we are now waiting on Wiley to send us the final proofs and we have requested that once the proofs are completed the article be posted online in early view. We are excited to share it but for now I hope you understand we are a bit hamstrung.

That being said, I would be more than happy to share the study's key findings with you verbally -- hopefully to a degree that would facilitate inclusion of these findings in your review. If you have a few free minutes today or tomorrow, we could chat by phone. Does that sound reasonable to you?

Kind regards,
Gavin

On Wed, Jun 1, 2016 at 11:44 PM, Monica Bond <monica@wildnatureinstitute.org> wrote:

Hi Gavin,

Can you send me your new in-press paper:

Jones, G*. M., R. J. Gutiérrez, D. J. Tempel, S. A. Whitmore, W. J. Berigan, and M. Z. Peery. In Press. Megafires: an emerging threat to old-forest species. *Frontiers in Ecology and the Environment*.

I am writing a literature review on spotted owls and fire and postfire logging for a reference module for Elsevier, and would like to include this paper if possible (the literature review has been accepted and is currently being copyedited, but I can ask them if I could include this).

Thanks!
Monica Bond

--

Gavin M. Jones
Graduate Research Assistant
Peery Wildlife Ecology & Conservation Lab
Dept. of Forest & Wildlife Ecology
University of Wisconsin-Madison
A223 Russell Labs

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[Gavin M. Jones](#)

Graduate Research Assistant
Peery Wildlife Ecology & Conservation Lab
Dept. of Forest & Wildlife Ecology
University of Wisconsin-Madison
A223 Russell Labs

--

[Gavin M. Jones](#)

Graduate Research Assistant
Peery Wildlife Ecology & Conservation Lab
Dept. of Forest & Wildlife Ecology
University of Wisconsin-Madison
A223 Russell Labs

--

[Gavin M. Jones](#)

Graduate Research Assistant
Peery Wildlife Ecology & Conservation Lab
Dept. of Forest & Wildlife Ecology
University of Wisconsin-Madison
A223 Russell Labs

Gavin Jones <gjones3@wisc.edu>
To: Monica Bond <monica@wildnatureinstitute.org>

Mon, Jul 4, 2016 at 3:15 PM

Hi Monica - happy 4th!

Thank you so much for sending this along. With respect to our paper - we really pushed the Editor last week to release it in early-view but she preferred that the paper stay under embargo until its official issue release (August 1st). Big bummer. I'll make sure to send it to you then.

By the way - I saw the original email you sent last week with the paper but I had just left for a little vacation to northern WI with wife and new baby. You know the rules about emailing on vacation... :-)
Thanks again for sending it.

-Gavin

On Sun, Jul 3, 2016 at 1:29 AM, Monica Bond <monica@wildnatureinstitute.org> wrote:

Hi Gavin,

Here is our latest paper.
Is yours available yet?

Thanks,
Monica

[Quoted text hidden]

[Quoted text hidden]

GJones2



Monica Bond <monibond@gmail.com>

King Fire - Owl paper out today

3 messages

Gavin Jones <gjones3@wisc.edu>

Mon, Aug 1, 2016 at 8:42 PM

To: Monica Bond <monica@wildnatureinstitute.org>

Greetings Monica,

Just this morning our manuscript entitled "Megafires: an emerging threat to old-forest species" came out in the journal *Frontiers in Ecology and the Environment*, attached here. Please feel free to share it among other interested folks.

Cheers,
Gavin

--

[Gavin M. Jones](#)Graduate Research Assistant
Peery Wildlife Ecology & Conservation Lab
Dept. of Forest & Wildlife Ecology
University of Wisconsin-Madison
A223 Russell Labs**Jones et al. 2016 (Frontiers).pdf**

2728K

Gavin Jones <gjones3@wisc.edu>

Wed, Aug 3, 2016 at 10:21 PM

To: Monica Bond <monica@wildnatureinstitute.org>

Hey Monica - yes I can send those to you. I'm in the field right now at Blodgett without my desktop and without much internet connectivity, so I will send once I get back next week. Unfortunately there are like 11 supplements and they all exist online as separate files, so I just don't have the umph to download them now.

Apologies - I'll send them soon.

-Gavin

On Wed, Aug 3, 2016 at 1:42 PM, Monica Bond <monica@wildnatureinstitute.org> wrote:

Hi Gavin, can you send me the supplemental materials? Thanks.

-Monica

On Aug 3, 2016 8:25 PM, "Monica Bond" <monica@wildnatureinstitute.org> wrote:

Thanks for sending, Gavin.

-Monica

[Quoted text hidden]

[Quoted text hidden]

Gavin Jones <gjones3@wisc.edu>

Mon, Aug 8, 2016 at 5:51 PM

To: Monica Bond <monica@wildnatureinstitute.org>

Ok great. I'd be happy to field questions if/when they arise.

Kind regards,
Gavin

On Fri, Aug 5, 2016 at 6:09 AM, Monica Bond <monica@wildnatureinstitute.org> wrote:

I was just able to download the supp materials myself so no worries.

On Thu, Aug 4, 2016 at 10:07 AM, Monica Bond <monica@wildnatureinstitute.org> wrote:

Roger, thanks Gavin.

[Quoted text hidden]

[Quoted text hidden]



Emails between Hanson and Peery

Fwd: CSO foraging locations in King fire?

1 message

Chad Hanson <cthanson1@gmail.com>

Sun, Mar 10, 2019 at 6:40 PM

To: Monica Bond <monibond@gmail.com>, Derek Lee <derek@wildnatureinstitute.org>, Chad Hanson <cthanson1@gmail.com>

More email exchange with Peery et al. over access to data:

----- Forwarded message -----

From: **M Peery** <mpeery@wisc.edu>

Date: Thu, Aug 11, 2016 at 10:37 AM

Subject: RE: CSO foraging locations in King fire?

To: Chad Hanson <cthanson1@gmail.com>

Cc: Gavin Jones <gavin.jones@wisc.edu>, Rocky Gutiérrez <gutie012@umn.edu>

Hi Chad

I appreciate your concerns. However, my understanding is that we are in full compliance with the data sharing obligations under our agreement with the Forest Service. A key component of this agreement involves graduate training and multiple students are actively working or soon will be working with these data for their thesis research. Thus, releasing the data at this time would interfere with the educational objectives of the project and I cannot grant your request.

Note that I consider this matter settled.

Thank you,

Zach

From: Chad Hanson [mailto:cthanson1@gmail.com]

Sent: Wednesday, August 10, 2016 1:59 PM

To: M Peery <mpeery@wisc.edu>

Cc: Gavin Jones <gavin.jones@wisc.edu>; Rocky Gutiérrez <gutie012@umn.edu>

Subject: Re: CSO foraging locations in King fire?

Hi Zach,

This is not about future, expanded research questions. I have concerns that the conclusions that you reported in your study, with regard to foraging, do not follow from your data. I am trying to confirm that the results of this paper are actually supported by these data. I also have concerns about the reluctance to share the locations, given that the

study has already been published, and was publicly-funded, conducted on public (Forest Service) lands, and housed by a public agency (Forest Service).

I hope you will reconsider and send along the GPS coordinates for all foraging locations, including both the <95% locations and the outermost 5% locations, as well as the discarded ones, and the centroids. Thanks.

Chad

On Tue, Aug 9, 2016 at 6:37 AM, M Peery <mpeery@wisc.edu> wrote:

Hi Chad

I also thank you for your interest in our work. We agree that a closer look at these data – particularly the foraging locations – is merited. However, the question you are interested in – namely, how owls might be using different burn severities at different spatial scales is one that Gavin will be tackling as part of the second chapter of his PhD dissertation. So, yes, these data are part of a published study, but they are also key to the remainder of Gavin's thesis and I would be remiss as an advisor if I allowed an external party to analyze his data in the same manner that he plans to in the very near future. However, and as Gavin mentioned, once all of these data are fully published, we will consider data requests from the broader research community and, in the meanwhile, are totally willing to accept input about how we might analyze the data.

Sincerely,

Zach

From: Chad Hanson [mailto:cthanson1@gmail.com]

Sent: Monday, August 08, 2016 6:03 PM

To: Gavin Jones <gavin.jones@wisc.edu>

Cc: M Peery <mpeery@wisc.edu>; Rocky Gutiérrez <gutie012@umn.edu>

Subject: Re: CSO foraging locations in King fire?

Hi Gavin, Thanks for responding. To be clear, I am not asking you for foraging locations that are not already part of a published study. I am only asking for locations in the study that you just published. Looking at your web figure on foraging locations, it is not clear to me that the owls were avoiding high-severity fire patches in the inner-50% of locations in most of the territories. So, I am interested in taking a closer look at that, as well as at habitat conditions at foraging locations. Thanks. Chad

On Mon, Aug 8, 2016 at 1:19 PM, Gavin Jones <gjones3@wisc.edu> wrote:

Hi Chad,

I have cc'd Zach Peery and Rocky Gutiérrez in this response, co-PIs on the project.

Thank you for your interest in the study and the associated foraging data. The study is ongoing and the foraging analysis published in *Frontiers* represents the first of several years of GPS data that will constitute a significant part of my PhD dissertation. Indeed, I plan on performing a much more detailed analysis of habitat conditions at foraging locations using 3+ years of GPS and post-fire vegetation data (collected at foraging locations).

Because your interest in taking a closer look at habitat conditions at foraging locations intersects with an ongoing research project and my own graduate training, I am not comfortable releasing the foraging locations and centroids to you at this time.

When the project has come to its completion, I would be happy to revisit this request with you. In the meantime, I would be happy to consider including habitat elements of particular interest to you in subsequent analyses of the more complete data set.

Kind regards,

Gavin

On Wed, Aug 3, 2016 at 7:08 PM, Chad Hanson <cthanson1@gmail.com> wrote:

Hi Gavin,

I read your study on CA spotted owls and King fire. I was particularly interested in the foraging component. Would you consider emailing me the GPS coordinates for the 1085 foraging locations, and the centroids? I would like to take a closer look at the data, and habitat conditions, at the foraging locations. Let me know what you think. Thanks.

Chad

--

[Gavin M. Jones](#)

Graduate Research Assistant

Peery Wildlife Ecology & Conservation Lab

Dept. of Forest & Wildlife Ecology

University of Wisconsin-Madison

A223 Russell Labs



Derek Lee <derek@wildnatureinstitute.org>

Fwd: Spreadsheet of 2016 CSO occupancy in King fire

1 message

Chad Hanson <cthanson1@gmail.com>

Sun, Mar 10, 2019 at 6:36 PM

To: Monica Bond <monibond@gmail.com>, Derek Lee <derek@wildnatureinstitute.org>

One more email exchange (they did not respond):

----- Forwarded message -----

From: **Chad Hanson** <cthanson1@gmail.com>

Date: Sat, Apr 29, 2017 at 10:39 AM

Subject: Spreadsheet of 2016 CSO occupancy in King fire

To: M Peery <mpeery@wisc.edu>

Cc: Gavin Jones <gavin.jones@wisc.edu>, Rocky Gutiérrez <gutie012@umn.edu>

Hi Zach, Last August, you mentioned that you would be willing to email me the results of your 2016 CSO occupancy surveys in the King fire, but that it was too early at that point in time because you had not yet sent your results to the Forest Service. Now that it is spring of 2017, I am assuming that you have long since sent your results to USFS. Can you please email be a spreadsheet showing which territories in King fire you found to be occupied, and unoccupied, in 2016? Thanks. Chad

On Tue, Aug 30, 2016 at 11:47 AM, M Peery <mpeery@wisc.edu> wrote:

Hi Chad.

In principle we don't have any issues sending you the inferred CSO PAC occupancy status in the King Fire area for 2016, but doing so will take some time as we are just wrapping up our field season starting the process of vetting/interpreting the 2016 data. Also, we are obligated to first provide these data to the FS, but will definitely let you know when we are able to share with other parties.

Thanks

Zach

From: Chad Hanson [mailto:cthanson1@gmail.com]**Sent:** Tuesday, August 30, 2016 10:35 AM**To:** Gavin Jones <gavin.jones@wisc.edu>**Cc:** M Peery <mpeery@wisc.edu>; Rocky Gutiérrez <gutie012@umn.edu>**Subject:** 2016 CSO occupancy data in King fire?

Hi Gavin, Zach, and Rocky,

Would you please email me the results of your 2016 CA spotted owl surveys for territories in, or partially in, the King fire area? Extensive post-fire logging is underway on national forest lands in a number of these territories right now in the King fire, but logging has not yet begun in some, and I would like to get a better understanding of the threats posed by ongoing logging to occupied territories.

Also, I wanted to give you all a heads-up that Jones et al. (2016) is being used by the Stanislaus National Forest as a justification for the Rim Fire Reforestation Project, which would largely clearcut over 15,000 acres of currently intact snag forest habitat in the Rim fire area--mostly within occupied spotted owl territories. The Forest Service cites Jones et al. (2016) in the Record of Decision as a key reason for the logging project, and specifically quotes the passage at the end of the study advocating logging for fuels reduction. I just wanted to make sure that you were aware of this.

Thank you for your consideration of my request for your 2016 CSO occupancy data in King fire.

Chad



Derek Lee <derek@wildnatureinstitute.org>

Fwd: CSO foraging locations in King fire?

1 message

Chad Hanson <cthanson1@gmail.com>

Sun, Mar 10, 2019 at 6:40 PM

To: Monica Bond <monibond@gmail.com>, Derek Lee <derek@wildnatureinstitute.org>, Chad Hanson <cthanson1@gmail.com>

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Date: Thu, Aug 11, 2016 at 10:37 AM

Subject: RE: CSO foraging locations in King fire?

To: Chad Hanson <cthanson1@gmail.com>

Cc: Gavin Jones <gavin.jones@wisc.edu>, Rocky Gutiérrez <gutie012@umn.edu>

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Sent: Wednesday, August 10, 2016 1:59 PM

To: M Peery <mpeery@wisc.edu>

Cc: Gavin Jones <gavin.jones@wisc.edu>; Rocky Gutiérrez <gutie012@umn.edu>

Subject: Re: CSO foraging locations in King fire?

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Zach

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Sent: Monday, August 08, 2016 6:03 PM

To: Gavin Jones <gavin.jones@wisc.edu>

Cc: M Peery <mpeery@wisc.edu>; Rocky Gutiérrez <gutie012@umn.edu>

Subject: Re: CSO foraging locations in King fire?

Hi Gavin, Thanks for responding. To be clear, I am not asking you for foraging locations that are not already part of a published study. I am only asking for locations in the study that you just published. Looking at your web figure on foraging locations, it is not clear to me that the owls were avoiding high-severity fire patches in the inner-50% of locations in most of the territories. So, I am interested in taking a closer look at that, as well as at habitat conditions at foraging locations. Thanks. Chad

On Mon, Aug 8, 2016 at 1:19 PM, Gavin Jones <gjones3@wisc.edu> wrote:

Hi Chad,

I have cc'd Zach Peery and Rocky Gutiérrez in this response, co-PIs on the project.

Thank you for your interest in the study and the associated foraging data. The study is ongoing and the foraging analysis published in *Frontiers* represents the first of several years of GPS data that will constitute a significant part of my PhD dissertation. Indeed, I plan on performing a much more detailed analysis of habitat conditions at foraging locations using 3+ years of GPS and post-fire vegetation data (collected at foraging locations).

Because your interest in taking a closer look at habitat conditions at foraging locations intersects with an ongoing research project and my own graduate training, I am not comfortable releasing the foraging locations and centroids to you at this time.

When the project has come to its completion, I would be happy to revisit this request with you. In the meantime, I would be happy to consider including habitat elements of particular interest to you in subsequent analyses of the more complete data set.

Kind regards,

Gavin

On Wed, Aug 3, 2016 at 7:08 PM, Chad Hanson <cthanson1@gmail.com> wrote:

Hi Gavin,

I read your study on CA spotted owls and King fire. I was particularly interested in the foraging component. Would you consider emailing me the GPS coordinates for the 1085 foraging locations, and the centroids? I would like to take a closer look at the data, and habitat conditions, at the foraging locations. Let me know what you think. Thanks.

Chad

--

[Gavin M. Jones](#)

Graduate Research Assistant

Peery Wildlife Ecology & Conservation Lab

Dept. of Forest & Wildlife Ecology

University of Wisconsin-Madison

A223 Russell Labs



Derek Lee <derek@wildnatureinstitute.org>

Fwd: Request for data re: CSO King fire analysis

1 message

Chad Hanson <cthanson1@gmail.com>

Sun, Mar 10, 2019 at 5:54 PM

To: Monica Bond <monibond@gmail.com>, Derek Lee <derek@wildnatureinstitute.org>

And here is the most recent email exchange (Feb. 2019):

----- Forwarded message -----

From: **M Peery** <mpeery@wisc.edu>

Date: Mon, Feb 25, 2019 at 11:42 AM

Subject: Re: Request for data re: CSO King fire analysis

To: cthanson1@gmail.com <cthanson1@gmail.com>

Cc: Gavin Jones <gavin.jones@wisc.edu>

Hi Chad

Gavin forwarded me your request for our spotted owl - King Fire data. Given the quality of the analyses and errors in your original paper, we are not comfortable sharing these data with you.

Thanks

Zach

From: Gavin Jones <gavin.jones@wisc.edu>

Sent: Sunday, February 24, 2019 12:22 PM

To: M Peery

Subject: Fwd: Request for data re: CSO King fire analysis

From: **Chad Hanson** <cthanson1@gmail.com>

Date: Sun, Feb 24, 2019 at 9:24 AM

Subject: Request for data re: CSO King fire analysis

To: Gavin Jones <gavin.jones@wisc.edu>, Gavin Jones <gjones3@wisc.edu>

Hi Gavin, Could you please email me the unpublished 1500-m scale analysis of post-fire logging and CSO occupancy in the King fire, which you reference on page 14 of your response to Hanson et al. (2018) in Nature Conservation? Also, could you please also email me the GPS coordinates for the foraging locations shown in WebFigure 3 of Jones et al. (2016)? Thanks.
Chad



Derek Lee <derek@wildnatureinstitute.org>

Fwd: 2016 CSO occupancy data in King fire?

1 message

Chad Hanson <cthanson1@gmail.com>

Sun, Mar 10, 2019 at 5:49 PM

To: Monica Bond <monibond@gmail.com>, Derek Lee <derek@wildnatureinstitute.org>

FYI, below is my email string awhile back asking for their data--they did not respond to the last one, requesting their survey field forms just for 2015.

----- Forwarded message -----

From: **Chad Hanson** <cthanson1@gmail.com>

Date: Tue, Sep 6, 2016 at 9:04 PM

Subject: Re: 2016 CSO occupancy data in King fire?

To: M Peery <mpeery@wisc.edu>

Zach, How about just sending me your King fire CSO survey field forms for the 2015 field season? Chad

On Wed, Aug 31, 2016 at 4:57 AM, M Peery <mpeery@wisc.edu> wrote:

Hi Chad

This second request is quite a bit more extensive than the original one, and one that I am not in a position to grant.

My apologies

Zach

From: Chad Hanson [mailto:cthanson1@gmail.com]

Sent: Tuesday, August 30, 2016 4:26 PM

To: M Peery <mpeery@wisc.edu>

Cc: Gavin Jones <gavin.jones@wisc.edu>; Rocky Gutiérrez <gutie012@umn.edu>

Subject: Re: 2016 CSO occupancy data in King fire?

Hi Zach,

Thanks for your willingness to send me your CSO occupancy data in King fire. To be clear, I am not asking for your analysis of the data. I simply want pdfs (or hard copies) of the field survey forms/notes/maps for 2016, as well as 2014 and 2015, for all territories in or partially in the King fire. Since the data I'm requesting already exist, and don't depend upon any future analysis, would you consider sending them to me now, including the 2016 data? Thanks.

Chad

On Tue, Aug 30, 2016 at 11:47 AM, M Peery <mpeery@wisc.edu> wrote:

Hi Chad.

In principle we don't have any issues sending you the inferred CSO PAC occupancy status in the King Fire area for 2016, but doing so will take some time as we are just wrapping up our field season starting the process of vetting/interpreting the 2016 data. Also, we are obligated to first provide these data to the FS, but will definitely let you know when we are able to share with other parties.

Thanks

Zach

From: Chad Hanson [mailto:cthanson1@gmail.com]
Sent: Tuesday, August 30, 2016 10:35 AM
To: Gavin Jones <gavin.jones@wisc.edu>
Cc: M Peery <mpeery@wisc.edu>; Rocky Gutiérrez <gutie012@umn.edu>
Subject: 2016 CSO occupancy data in King fire?

Hi Gavin, Zach, and Rocky,

Would you please email me the results of your 2016 CA spotted owl surveys for territories in, or partially in, the King fire area? Extensive post-fire logging is underway on national forest lands in a number of these territories right now in the King fire, but logging has not yet begun in some, and I would like to get a better understanding of the threats posed by ongoing logging to occupied territories.

Also, I wanted to give you all a heads-up that Jones et al. (2016) is being used by the Stanislaus National Forest as a justification for the Rim Fire Reforestation Project, which would largely clearcut over 15,000 acres of currently intact snag forest habitat in the Rim fire area--mostly within occupied spotted owl territories. The Forest Service cites Jones et al. (2016) in the Record of Decision as a key reason for the logging project, and specifically quotes the passage at the end of the study advocating logging for fuels reduction. I just wanted to make sure that you were aware of this.

Thank you for your consideration of my request for your 2016 CSO occupancy data in King fire.

Chad



FS Agreement No. 14-CS-11052007-015
Cooperator Agreement No. _____

CHALLENGE COST SHARE AGREEMENT

Between The
BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM
And The
USDA, FOREST SERVICE
PACIFIC SOUTHWEST REGION, REGIONAL OFFICE

This CHALLENGE COST SHARE AGREEMENT is hereby made and entered into by and between the Board of Regents of the University of Wisconsin System, hereinafter referred to as "UW-Madison," and the USDA, Forest Service, Pacific Southwest Region, Regional Office hereinafter referred to as the "U.S. Forest Service," under the authority: Department of Interior and Related Agencies Appropriation Act of 1992, Pub. L. 102-154

Background: This agreement is to be issued in support of the Forest Service's obligation to manage for Regional Forester's Sensitive species under Department of Agriculture Regulations 9500-004 and to meet population inventory and monitoring requirements as promulgated at 16 USC Section 1603.

Title: **Eldorado California Spotted Owl Demography Study**

I. PURPOSE:

The purpose of this agreement is to document the cooperation between the parties to provide field biology laboratory opportunities to students while collecting information necessary to the Forest Service mission of determining population levels for Forest and project planning and will contribute to the viability of the California Spotted Owl in accordance with the following provisions and the hereby incorporated Operating and Financial Plan, attached as Exhibit A.

II. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

The National Forest Management Act directs the Forest Service to maintain viable populations of wildlife species. This study is the Forest Service contribution to the viability of the California Spotted Owl and monitoring of the Sierra Nevada Framework Plan Amendment (2004).

University of Wisconsin is dedicated to promote outstanding research and has technically skilled academic staffs who are experts in evaluation of demographic population parameters, including facilitation of scientific information on the conservation of species habitats.



The Forest Service will receive the expertise in demographic population modeling and ecology of the California Spotted Owl. University of Wisconsin will have scientifically sound studies to provide their graduate and undergraduate students, as well as current application of wildlife practices in their academic coursework.

In Consideration of the above premises, the parties agree as follows:

III. UW - MADISON SHALL:

- A. LEGAL AUTHORITY. UW - Madison shall have the legal authority to enter into this agreement, and the institutional, managerial, and financial capability to ensure proper planning, management, and completion of the project, which includes funds sufficient to pay the nonfederal share of project costs, when applicable.
- B. UW - Madison shall furnish all other equipment and materials necessary to complete:
 - (a) Spotted Owl survey, capture, marking, and recapture activities; and
 - (b) a narrative report documenting the results of these activities.

IV. THE U.S. FOREST SERVICE SHALL:

- A. PAYMENT/REIMBURSEMENT. The U.S. Forest Service shall reimburse UW - Madison for the U.S. Forest Service's share of actual expenses incurred, not to exceed \$350,000.00, as shown in the Financial Plan. The U.S. Forest Service shall make payment upon receipt of UW - Madison's monthly invoice. Each invoice from UW - Madison must display the total project costs for the billing period, separated by U.S. Forest Service and UW - Madison share. In-kind contributions must be displayed as a separate line item and must not be included in the total project costs available for reimbursement. The final invoice must display UW - Madison's full match towards the project, as shown in the financial plan, and be submitted no later than 90 days from the expiration date.

Each invoice must include, at a minimum:

1. UW - Madison's name, address, and telephone number
2. U.S. Forest Service agreement number
3. Invoice date
4. Performance dates of the work completed (start & end)
5. Total invoice amount for the billing period
6. Statement that the invoice is a request for payment by 'reimbursement'
7. If using SF-270, a signature is required.
8. Invoice Number, if applicable

The invoice must be sent by one of three methods (email is preferred):

EMAIL: asc_ga@fs.fed.us

FAX: 877-687-4894



POSTAL: USDA Forest Service
Albuquerque Service Center
Payments – Grants & Agreements
101B Sun Ave NE
Albuquerque, NM 87109

Send a copy to: Patricia Krueger
Regional TES Species Coordinator
Ecosystem Management Staff
1323 Club Drive, 4th Floor South
Vallejo, CA 94592
pkrueger@fs.fed.us

- B. The US Forest Service shall furnish as at the beginning of the agreement and as needed: (i) electronic topographic maps of the federal land within the study area; (ii) minor administrative services, such as photocopying in small supplies, paper, pencils, and occasional office space; and (iii) individual forest recreation maps.

V. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

- A. PRINCIPAL CONTACTS. Individuals listed below are authorized to act in their respective areas for matters related to this agreement.

Principal Cooperator Contacts:

Cooperator Program Contact	Cooperator Administrative Contact
<p>Zach Peery / Rocky Gutierrez Department of Forest and Wildlife Ecology University of Wisconsin – Madison Madison, WI 53706 PHONE 608-890-2766 mpeery@wisc.edu</p>	<p>Vincent Borleske, Research Administrator University of Wisconsin – Madison CALS Research Division 240 Agricultural Hall 1450 Linden Drive Madison, WI 53706 PHONE 608-890-3180 FAX 608-265-9534 vborleske@cals.wisc.edu</p>



Principal U.S. Forest Service Contacts:

U.S. Forest Service Program Manager Contact	U.S. Forest Service Administrative Contact
Patricia Krueger Regional TES Species Coordinator Ecosystem management Staff USDA Forest Service 1323 Club Drive, 4 th Floor South Vallejo, CA 94592-1110 pkrueger@fs.fed.us PHONE 707-562-8954 FAX 707-562-9054	Geraldine Bordash Grants And Agreement Specialist USDA Forest Service Pacific Southwest Region 1323 Club Drive Vallejo, CA 94592-1110 gbordash@fs.fed.us PHONE (707) 562-8782 FAX (707) 562-9140

B. **NOTICES.** Any communications affecting the operations covered by this agreement given by the U.S. Forest Service or UW - Madison are sufficient only if in writing and delivered in person, mailed, or transmitted electronically by e-mail or fax, as follows:

To the U.S. Forest Service Program Manager, at the address specified in the agreement.

To UW - Madison, at UW - Madison's address shown in the agreement or such other address designated within the agreement.

Notices are effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

C. **PARTICIPATION IN SIMILAR ACTIVITIES.** This agreement in no way restricts the U.S. Forest Service or UW - Madison from participating in similar activities with other public or private agencies, organizations, and individuals.

D. **ENDORSEMENT.** Any of UW - Madison's contributions made under this agreement do not by direct reference or implication convey U.S. Forest Service endorsement of UW - Madison's products or activities.

E. **USE OF U.S. FOREST SERVICE INSIGNIA.** In order for UW - Madison to use the U.S. Forest Service insignia on any published media, such as a Web page, printed publication, or audiovisual production, permission must be granted from the U.S. Forest Service's Office of Communications. A written request must be submitted and approval granted in writing by the Office of Communications (Washington Office) prior to use of the insignia.



- F. NON-FEDERAL STATUS FOR COOPERATOR PARTICIPANT LIABILITY. UW - Madison agree(s) that any of their employees, volunteers, and program participants shall not be deemed to be Federal employees for any purposes including Chapter 171 of Title 28, United States Code (Federal Tort Claims Act) and Chapter 81 of Title 5, United States Code (OWCP), as UW - Madison hereby willingly agree(s) to assume these responsibilities.

Further, UW - Madison shall provide any necessary training to UW - Madison's employees, volunteers, and program participants to ensure that such personnel are capable of performing tasks to be completed. UW - Madison shall also supervise and direct the work of its employees, volunteers, and participants performing under this agreement.

- G. MEMBERS OF U.S. CONGRESS. Pursuant to 41 U.S.C. 22, no United States member of, or United States delegate to, Congress shall be admitted to any share or part of this agreement, or benefits that may arise therefrom, either directly or indirectly.
- H. NONDISCRIMINATION. The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.
- I. ELIGIBLE WORKERS. UW - Madison shall ensure that all employees complete the I-9 form to certify that they are eligible for lawful employment under the Immigration and Nationality Act (8 USC 1324a). UW - Madison shall comply with regulations regarding certification and retention of the completed forms. These requirements also apply to any contract awarded under this agreement.
- J. STANDARDS FOR FINANCIAL MANAGEMENT.

1. Financial Reporting

UW - Madison shall provide complete, accurate, and current financial disclosures of the project or program in accordance with any financial reporting requirements, as set forth in the financial provisions.

2. Accounting Records



UW - Madison shall continuously maintain and update records identifying the source and use of funds. The records shall contain information pertaining to the agreement, authorizations, obligations, unobligated balances, assets, outlays, and income.

3. Internal Control

UW - Madison shall maintain effective control over and accountability for all U.S. Forest Service funds, real property, and personal property assets. UW - Madison shall keep effective internal controls to ensure that all United States Federal funds received are separately and properly allocated to the activities described in the agreement. UW - Madison shall adequately safeguard all such property and shall ensure that it is used solely for authorized purposes.

4. Source Documentation

UW - Madison shall support all accounting records with source documentation. These documentations include, but are not limited to, cancelled checks, paid bills, payrolls, contract and subgrant/contract documents, and so forth.

K. **OVERPAYMENT.** Any funds paid to UW - Madison in excess of the amount entitled under the terms and conditions of this agreement constitute a debt to the Federal Government. The following must also be considered as a debt or debts owed by UW - Madison to the U.S. Forest Service:

- Any interest or other investment income earned on advances of agreement funds; or
- Any royalties or other special classes of program income which, under the provisions of the agreement, are required to be returned;

If this debt is not paid according to the terms of the bill for collection issued for the overpayment, the U.S. Forest Service may reduce the debt by:

1. Making an administrative offset against other requests for reimbursement.
2. Withholding advance payments otherwise due to UW - Madison.
3. Taking other action permitted by statute (31 U.S.C. 3716 and 7 CFR, Part 3, Subpart B).

Except as otherwise provided by law, the U.S. Forest Service may charge interest on an overdue debt.

L. **AGREEMENT CLOSEOUT.** UW - Madison shall close out the agreement within 90 days after expiration or notice of termination.



Any unobligated balance of cash advanced to UW - Madison must be immediately refunded to the U.S. Forest Service, including any interest earned in accordance with 7 CFR 3016.21, 7 CFR 3019.22, or other relevant law or regulation.

Within a maximum of 90 days following the date of expiration or termination of this agreement, all financial performance and related reports required by the terms of the agreement must be submitted to the U.S. Forest Service by UW - Madison.

If this agreement is closed out without audit, the U.S. Forest Service reserves the right to disallow and recover an appropriate amount after fully considering any recommended disallowances resulting from an audit which may be conducted later.

- M. PROGRAM PERFORMANCE REPORTS UW - Madison shall monitor the performance of the agreement activities to ensure that performance goals are being achieved.

Performance reports must contain information on the following:

- A comparison of actual accomplishments to the goals established for the period. Where the output of the project can be readily expressed in numbers, a computation of the cost per unit of output may be required if that information is useful.
- Reason(s) for delay if established goals were not met.
- Additional pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.

UW - Madison shall submit quarterly performance reports to the U.S. Forest Service Program Manager. These reports are due 30 days after the reporting period. The final performance report shall be submitted either with UW - Madison's final payment request, or separately, but not later than 90 days from the expiration date of the agreement.

- N. RETENTION AND ACCESS REQUIREMENTS FOR RECORDS. UW - Madison shall retain all records pertinent to this agreement for a period of no less than 3 years from the expiration or termination date. As used in this provision, "records" includes books, documents, accounting procedures and practice, and other data, regardless of the type or format. UW - Madison shall provide access and the right to examine all records related to this agreement to the U.S. Forest Service Inspector General, or Comptroller General or their authorized representative.

If any litigation, claim, negotiation, audit, or other action involving the records has been started before the end of the 3-year period, the records must be kept until all issues are resolved, or until the end of the regular 3-year period, whichever is later.



Records for nonexpendable property acquired in whole or in part, with Federal funds must be retained for 3 years after its final disposition.

UW - Madison shall provide access to any project site(s) to the U.S. Forest Service or any of their authorized representatives. The rights of access in this section shall not be limited to the required retention period but shall last as long as the records are kept.

- O. FREEDOM OF INFORMATION ACT (FOIA). Public access to agreement records must not be limited, except when such records must be kept confidential and would have been exempted from disclosure pursuant to Freedom of Information regulations (5 U.S.C. 552).
- P. TEXT MESSAGING WHILE DRIVING. In accordance with Executive Order (EO) 13513, "Federal Leadership on Reducing Text Messaging While Driving," any and all text messaging by Federal employees is banned: a) while driving a Government owned vehicle (GOV) or driving a privately owned vehicle (POV) while on official Government business; or b) using any electronic equipment supplied by the Government when driving any vehicle at any time. All cooperators, their employees, volunteers, and contractors are encouraged to adopt and enforce policies that ban text messaging when driving company owned, leased or rented vehicles, POVs or GOVs when driving while on official Government business or when performing any work for or on behalf of the Government.
- Q. PUBLIC NOTICES. It is the U.S. Forest Service's policy to inform the public as fully as possible of its programs and activities. UW - Madison is/are encouraged to give public notice of the receipt of this agreement and, from time to time, to announce progress and accomplishments. Press releases or other public notices should include a statement substantially as follows:

"Pacific Southwest Region of the U.S. Forest Service, Department of Agriculture is contributing to the viability of the California Spotted Owl."

UW - Madison may call on the U.S. Forest Service's Office of Communication for advice regarding public notices. UW - Madison is/are requested to provide copies of notices or announcements to the U.S. Forest Service Program Manager and to U.S. Forest Service's Office of Communications as far in advance of release as possible.

- R. CONTRACT REQUIREMENTS. Any contract under this agreement must be awarded following UW - Madison's established procurement procedures, to ensure free and open competition, and avoid any conflict of interest (or appearance of a conflict). UW - Madison must maintain cost and price analysis documentation for potential U.S. Forest Service review. UW - Madison is/are encouraged to utilize small businesses, minority-owned firms, and women's business enterprises.



Additionally, federal wage provisions (Davis-Bacon or Service Contract Act) are applicable to any contract developed and awarded under this agreement where all or part of the funding is provided with U.S. Forest Service funds. Davis-Bacon wage rates apply on all public works contracts in excess of \$2,000 and Service Contract Act wage provisions apply to service contracts in excess of \$2,500.

- S. U.S. FOREST SERVICE ACKNOWLEDGED IN PUBLICATIONS, AUDIOVISUALS AND ELECTRONIC MEDIA. UW - Madison shall acknowledge U.S. Forest Service support in any publications, audiovisuals, and electronic media developed as a result of this agreement.
- T. NONDISCRIMINATION STATEMENT – PRINTED, ELECTRONIC, OR AUDIOVISUAL MATERIAL. UW - Madison shall include the following statement, in full, in any printed, audiovisual material, or electronic media for public distribution developed or printed with any Federal funding.

"In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)"

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer."

If the material is too small to permit the full statement to be included, the material must, at minimum, include the following statement, in print size no smaller than the text:

"This institution is an equal opportunity provider."

- U. REMEDIES FOR COMPLIANCE RELATED ISSUES. If UW - Madison materially fail(s) to comply with any term of the agreement, whether stated in a Federal statute or regulation, an assurance, or the agreement, the U.S. Forest Service may take one or more of the following actions:
1. Temporarily withhold cash payments pending correction of the deficiency by UW - Madison or more severe enforcement action by the U.S. Forest Service;
 2. Disallow (that is, deny both use of funds and matching credit for) all or part of the cost of the activity or action not in compliance;
 3. Wholly or partly suspend or terminate the current agreement for UW - Madison's program;
 4. Withhold further awards for the program, or



5. Take other remedies that may be legally available, including debarment procedures under 7 CFR part 3017.

V. TERMINATION BY MUTUAL AGREEMENT. This agreement may be terminated, in whole or part, as follows:

1. When the U.S. Forest Service and UW - Madison agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated.
2. By 30 days written notification by UW - Madison to the U.S. Forest Service setting forth the reasons for termination, effective date, and in the case of partial termination, the portion to be terminated.

If, in the case of a partial termination, the U.S. Forest Service determines that the remaining portion of the agreement will not accomplish the purposes for which the agreement was made, the U.S. Forest Service may terminate the agreement in its entirety.

Upon termination of an agreement, UW - Madison shall not incur any new obligations for the terminated portion of the agreement after the effective date, and shall cancel as many outstanding obligations as possible. The U.S. Forest Service shall allow full credit to UW - Madison for the United States Federal share of the non-cancelable obligations properly incurred by UW - Madison up to the effective date of the termination. Excess funds must be refunded within 60 days after the effective date of termination.

W. ALTERNATE DISPUTE RESOLUTION – PARTNERSHIP AGREEMENT. In the event of any issue of controversy under this agreement, the parties may pursue Alternate Dispute Resolution procedures to voluntarily resolve those issues. These procedures may include, but are not limited to conciliation, facilitation, mediation, and fact finding.

X. DEBARMENT AND SUSPENSION. UW - Madison shall immediately inform the U.S. Forest Service if they or any of their principals are presently excluded, debarred, or suspended from entering into covered transactions with the Federal Government according to the terms of 2 CFR Part 180. Additionally, should UW - Madison or any of their principals receive a transmittal letter or other official Federal notice of debarment or suspension, then they shall notify the U.S. Forest Service without undue delay. This applies whether the exclusion, debarment, or suspension is voluntary or involuntary.

Y. MODIFICATIONS. Modifications within the scope of this agreement must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes being



performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change. The U.S. Forest Service is not obligated to fund any changes not properly approved in advance.

Z. COMMENCEMENT/EXPIRATION DATE. This agreement is executed as of the date of the last signature and is effective through December 31, 2017 at which time it will expire, unless extended by an executed modification, signed and dated by all properly authorized, signatory officials.

AA. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this agreement. In witness whereof, the parties hereto have executed this agreement as of the last date written below.

DAVID NGO, Managing Officer
Research and Sponsored Programs, Board of Regents
University of Wisconsin System

3-4-14
Date

DEBRA WHITMAN, Director
Ecosystem Management
U.S. Forest Service, Pacific Southwest Region

3/6/14
Date

The authority and format of this agreement have been reviewed and approved for signature.

KELLIE L. HAMILTON
U.S. Forest Service Grants Management Specialist

2/24/14
Date

**Burden Statement**

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0217. The time required to complete this information collection is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

Attachment: 1

USFS Agreement No.: 2014-CS-11052007-015

Mod. No.:

Cooperator Agreement No.:

Note: This Financial Plan may be used when:

- (1) No program income is expected and
- (2) The Cooperator is not giving cash to the FS and
- (3) There is no other Federal funding

Agreements Financial Plan (Short Form)

Note: All columns may not be used. Use depends on source and type of contribution(s).

COST ELEMENTS	FOREST SERVICE CONTRIBUTIONS		COOPERATOR CONTRIBUTIONS		(e) Total
	(a) Noncash	(b) Cash to Cooperator	(c) Noncash	(d) In-Kind	
Direct Costs					
Salaries/Labor	\$8,500.00	\$230,697.46	\$11,513.00	\$0.00	\$250,710.45
Travel	\$0.00	\$33,280.00	\$0.00	\$0.00	\$33,280.00
Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Supplies/Materials	\$0.00	\$11,825.00	\$0.00	\$0.00	\$11,825.00
Printing	\$0.00	\$600.00	\$0.00	\$0.00	\$600.00
Other	\$0.00	\$41,779.36	\$0.00	\$0.00	\$41,779.36
Other					\$0.00
Subtotal	\$8,500.00	\$318,181.82	\$11,513.00	\$0.00	\$338,194.81
Coop Indirect Costs		\$31,818.18	\$78,314.06		\$110,132.24
FS Overhead Costs	\$0.00				\$0.00
Total	\$8,500.00	\$350,000.00	\$89,827.06	\$0.00	\$448,327.06
Total Project Value:					

Matching Costs Determination	
Total Forest Service Share = (a+b) ÷ (e) = (f)	(f) 79.96%
Total Cooperator Share (c+d) ÷ (e) = (g)	(g) 20.04%
Total (f+g) = (h)	(h) 100.00%

WORKSHEET FOR

FS Non-Cash Contribution Cost Analysis, Column (a)

Use this worksheet to perform the cost analysis that supports the lump sum figures provided in the matrix. NOTE: This worksheet auto populates the relevant and applicable matrix cells.

Cost element sections may be deleted or lines may be hidden, if not applicable. Line items may be added or deleted as needed. The Standard Calculation sections provide a standardized formula for determining a line item's cost, e.g. $\text{cost/day} \times \# \text{ of days} = \text{total}$, where the total is calculated automatically. The Non-Standard Calculation sections provide a write-in area for line items that require a calculation formula that is other than the standardized formulas, e.g. instead of salaries being calculated by $\text{cost/day} \times \# \text{ of days}$, costs may be calculated simply by a contracted value that is not dependent on days worked, such as $1 \text{ employee} \times \$1,200/\text{contract} = \$1,200$. Be sure to review your calculations when entering in a Non-Standard Calculation, and provide a brief explanation of units used to make calculation, e.g. '1 month contract,' on a line below the figures.

Salaries/Labor				
Standard Calculation				
Job Description		Cost/Day	# of Days	Total
Biologist		\$500.00	10.00	\$5,000.00
Data		\$350.00	10.00	\$3,500.00
				\$0.00
				\$0.00
				\$0.00

Non-Standard Calculation

Total Salaries/Labor	\$8,500.00
-----------------------------	-------------------

Travel				
Standard Calculation				
Travel Expense	Employees	Cost/Trip	# of Trips	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00

Non-Standard Calculation

Total Travel	\$0.00
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Equipment				
Standard Calculation				
Piece of Equipment	# of Units	Cost/Day	# of Days	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00

Non-Standard Calculation

Total Equipment		\$0.00
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Supplies/Materials			
Standard Calculation			
Supplies/Materials	# of Items	Cost/Item	Total
			\$0.00
			\$0.00
			\$0.00
			\$0.00

Non-Standard Calculation

Total Supplies/Materials	\$0.00
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Printing			
Standard Calculation			
Paper Material	# of Units	Cost/Unit	Total
			\$0.00

Non-Standard Calculation

Total Printing	\$0.00
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Other Expenses			
Standard Calculation			
Item	# of Units	Cost/Unit	Total
			\$0.00
			\$0.00
			\$0.00
			\$0.00

Non-Standard Calculation

Total Other	\$0.00
--------------------	---------------

Subtotal Direct Costs	\$8,500.00
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Forest Service Overhead Costs

Current Overhead Rate	Subtotal Direct Costs		Total
	\$8,500.00		\$0.00

Total FS Overhead Costs	\$0.00
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TOTAL COST	\$8,500.00
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WORKSHEET FOR

FS Cash to the Cooperator Cost Analysis, Column (b)

Use this worksheet to perform the cost analysis that supports the lump sum figures provided in the matrix. NOTE: This worksheet auto populates the relevant and applicable matrix cells.

Cost element sections may be deleted or lines may be hidden, if not applicable. Line items may be added or deleted as needed. The Standard Calculation sections provide a standardized formula for determining a line item's cost, e.g. cost/day x # of days=total, where the total is calculated automatically. The Non-Standard Calculation sections provide a write-in area for line items that require a calculation formula that is other than the standardized formulas, e.g. instead of salaries being calculated by cost/day x # of days, costs may be calculated simply by a contracted value that is not dependent on days worked, such as 1 employee x \$1,200/contract=\$1,200. Be sure to review your calculations when entering in a Non-Standard Calculation, and provide a brief explanation of units used to make calculation, e.g. '1 month contract,' on a line below the figures.

Salaries/Labor				
Standard Calculation				
Job Description	# personnel	Base rate (ann)	% effort	Total
Principle Investigator	1	\$ 85,598.00	15.87%	\$13,586.46
Masters Student	1	\$ 41,616.00	33.33%	\$13,872.00
Associate 1	1	\$ 48,480.00	100.00%	\$48,480.00
Associate 2	1	\$ 48,480.00	100.00%	\$48,480.00
Field Technicians (2)	2	\$ 28,080.00	21.06%	\$11,826.00
Field Technicians (4)	4	\$ 28,080.00	33.08%	\$37,152.00
Undergraduate student	1	\$ 20,600.00	41.26%	\$8,500.00
Non-Standard Calculation				
Job Description		Fringe amount		Total
Principle Investigator (Fringe)		\$ 4,688.00		\$4,688.00
Masters Student (Fringe)		\$ 3,357.00		\$3,357.00
Associate Fringe 1		\$ 16,726.00		\$16,726.00
Associate Fringe 2		\$ 16,726.00		\$16,726.00
Field Technicians Fringe (2)		\$ 1,679.00		\$1,679.00
Field Technicians Fringe (4)		\$ 5,276.00		\$5,276.00
Undergraduate student		\$ 349.00		\$349.00
Total Salaries/Labor				\$230,697.46

Travel				
Standard Calculation				
Travel Expense	Employees	Cost/Trip	# of Trips	Total
Madison to Field Site		\$1,000.00	1.00	\$1,000.00
Madison to Field Site		\$1,380.00	1.00	\$1,380.00
Reno to field Site		\$150.00	2.00	\$300.00
Field Work Backup		\$50.00	10.00	\$500.00
Vehicle rental (4)		\$1,350.00	8.00	\$10,800.00
Vehicle rental (4)		\$1,200.00	10.00	\$12,000.00
Gasoline		\$4.00	1100.00	\$4,400.00
Vehicle Repair		\$2,900.00		\$2,900.00
				\$0.00
Non-Standard Calculation				

Total Travel	\$33,280.00
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Equipment				
Standard Calculation				
Piece of Equipment	# of Units	Cost/Day	# of Days	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00

Non-Standard Calculation				
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Total Equipment	\$0.00
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Supplies/Materials				
Standard Calculation				
Supplies/Materials		# of Items	Cost/Item	Total
Mice and associated supplies		3500.00		\$3,500.00
Misc Field Supplies		5300.00		\$5,300.00
Sex Testing lab supplies		\$1,000.00		\$1,000.00
Misc Office Supplies		\$1,025.00		\$1,025.00
Misc Software		\$1,000.00		\$1,000.00
				\$0.00
				\$0.00

Non-Standard Calculation				
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Total Supplies/Materials	\$11,825.00
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Printing				
Standard Calculation				
Paper Material		# of Units	Cost/Unit	Total
Copying and postage		1.00	\$600.00	\$600.00

Non-Standard Calculation				
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	\$0.00
Total Printing	\$600.00

Other Expenses				
Standard Calculation				
Item		# of Units	Cost/Unit	Total
California State Permits		1.00	\$800.00	\$800.00
Field Housing Rental Off Blodgett		1.00	\$4,500.00	\$4,500.00
Field Housing Rental On Blodgett		1.00	\$7,400.00	\$7,400.00
Phone/Internet		1.00	\$1,149.36	\$1,149.36
Storage Unit Rental		1.00	\$930.00	\$930.00
Univ of Minnesota Subaward			27000.00	\$27,000.00

Non-Standard Calculation				
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Total Other

\$41,779.36

Subtotal Direct Costs	\$318,181.82
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Cooperator Indirect Costs

Current Overhead Rate	Subtotal Direct Costs		Total
10.00%	\$318,181.82		\$31,818.18
Total Coop. Indirect Costs			\$31,818.18

TOTAL COST	\$350,000.00
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WORKSHEET FOR

Cooperator Non-Cash Contribution Cost Analysis, Column (c)

Use this worksheet to perform the cost analysis that supports the lump sum figures provided in the matrix.
 NOTE: This worksheet auto populates the relevant and applicable matrix cells.

Cost element sections may be deleted or lines may be hidden, if not applicable. Line items may be added or deleted as needed. The Standard Calculation sections provide a standardized formula for determining a line item's cost, e.g. cost/day x # of days=total, where the total is calculated automatically. The Non-Standard Calculation sections provide a write-in area for line items that require a calculation formula that is other than the standardized formulas, e.g. instead of salaries being calculated by cost/day x # of days, costs may be calculated simply by a contracted value that is not dependent on days worked, such as 1 employee x \$1,200/contract=\$1,200. Be sure to review your calculations when entering in a Non-Standard Calculation, and provide a brief explanation of units used to make calculation, e.g. '1 month contract,' on a line below the figures.

Salaries/Labor				
Standard Calculation				
Job Description	Base rate (annl)	% effort		Total
Principle Investigator	\$85,598.00	10.00%		\$8,560.00
				\$0.00

Non-Standard Calculation				
Principle Investigator (Fringe)	\$2,953.00			\$2,953.00
				\$0.00

Total Salaries/Labor				\$11,513.00
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Travel				
Standard Calculation				
Travel Expense	Employees	Cost/Trip	# of Trips	Total
				\$0.00
				\$0.00

Non-Standard Calculation				

Total Travel				\$0.00
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Equipment				
Standard Calculation				
Piece of Equipment	# of Units	Cost/Day	# of Days	Total
				\$0.00
				\$0.00

Non-Standard Calculation				

Total Equipment				\$0.00
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Supplies/Materials				
Standard Calculation				
Supplies/Materials	# of Items	Cost/Item		Total
				\$0.00

Non-Standard Calculation				

Total Supplies/Materials				\$0.00
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Printing				

Standard Calculation				
Paper Material		# of Units	Cost/Unit	Total
				\$0.00

Non-Standard Calculation				
				\$0.00

Total Printing				\$0.00
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Other Expenses				
Standard Calculation				
Item		# of Units	Cost/Unit	Total
				\$0.00

Non-Standard Calculation				

Total Other				\$0.00
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Subtotal Direct Costs	\$11,513.00
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Cooperator Indirect Costs

Current Overhead Rate	Subtotal Direct Costs		Total
50.50%	\$11,513.00		\$5,814.06
Unrecovered rate (50.5-10)*	partial		\$72,500.00
Total Coop. Indirect Costs			\$78,314.06

TOTAL COST	\$89,827.06
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*indirect rate can only be applied on the first \$25,000 of a subaward, hence number is reduce to reflect that

WORKSHEET FOR

Cooperator In-Kind Contribution Cost Analysis, Column (d)

Use this worksheet to perform the cost analysis that supports the lump sum figures provided in the matrix.
 NOTE: This worksheet auto populates the relevant and applicable matrix cells.

Cost element sections may be deleted or lines may be hidden, if not applicable. Line items may be added or deleted as needed. The Standard Calculation sections provide a standardized formula for determining a line item's cost, e.g. $\text{cost/day} \times \# \text{ of days} = \text{total}$, where the total is calculated automatically. The Non-Standard Calculation sections provide a write-in area for line items that require a calculation formula that is other than the standardized formulas, e.g. instead of salaries being calculated by $\text{cost/day} \times \# \text{ of days}$, costs may be calculated simply by a contracted value that is not dependent on days worked, such as 1 employee $\times \$1,200/\text{contract} = \$1,200$. Be sure to review your calculations when entering in a Non-Standard Calculation, and provide a brief explanation of units used to make calculation, e.g. '1 month contract,' on a line below the figures.

Salaries/Labor

Standard Calculation				
Job Description		Cost/Day	# of Days	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00

Non-Standard Calculation

Total Salaries/Labor	\$0.00
-----------------------------	---------------

Travel

Standard Calculation				
Travel Expense	Employees	Cost/Trip	# of Trips	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00

Non-Standard Calculation

Total Travel	\$0.00
---------------------	---------------

Equipment

Standard Calculation				
Piece of Equipment	# of Units	Cost/Day	# of Days	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00

Non-Standard Calculation

Total Equipment **\$0.00**

Supplies/Materials

Standard Calculation

Supplies/Materials	# of Items	Cost/Item	Total
			\$0.00
			\$0.00
			\$0.00
			\$0.00

Non-Standard Calculation

Total Supplies/Materials **\$0.00**

Printing

Standard Calculation

Paper Material	# of Units	Cost/Unit	Total
			\$0.00

Non-Standard Calculation

Total Printing **\$0.00**

Other Expenses

Standard Calculation

Item	# of Units	Cost/Unit	Total
			\$0.00
			\$0.00
			\$0.00
			\$0.00

Non-Standard Calculation

Total Other **\$0.00**

Subtotal Direct Costs **\$0.00**

TOTAL COST **\$0.00**

**STATEMENT OF WORK
2014 SPOTTED OWL DEMOGRAPHIC STUDY
ELDORADO STUDY AREA**

1 GENERAL SPECIFICATION

1.1 Scope of Agreement

The purpose of the agreement is to provide field biology laboratory opportunities to students while collecting information necessary to the Forest Service mission of determining viable population levels for Forest and project planning and will contribute to the recovery of the California Spotted Owl. The method is to survey identified study areas to established protocols for the purposes of locating and marking (placing leg bands and/or other markers on) spotted owls. All of the data collected by the study are to be used to determine the survival and reproduction of individual owls in addition to calculating a refined estimate of the population change over the period of the study. This agreement is to be issued in support of the Forest Service's obligations to manage for Regional Foresters' Sensitive species under Department of Agriculture Regulations 9500-004 and to meet population inventory and monitoring requirements as promulgated at 16 USC (Section 1603).

1.2 Location and Description: The study area is in Central Sierra Nevada Mountains, Eldorado National Forest, California.

1.3 Government-furnished Property: The government shall furnish at the beginning of the agreement and as needed:

- A. Topographic maps of the federal land within the study area.
- B. Minor administrative services, such as photocopying in small supplies, paper, pencils, and occasional office space.
- C. Individual forest recreation maps.

1.4 Equipment: The Cooperator shall furnish all other equipment and materials necessary to complete:

- A. Spotted owl survey, capture, marking, and recapture activities.
- B. A narrative report documenting the results of these activities in the final report described in Section 2.2.2.

At a minimum, this equipment will include: mice, a global positioning system, document photo duplication, 2 way radios and batteries.

1.5 Project Scheduling and Coordination: Prior to commencing any work activity at any of the study sites the Cooperator shall provide the US Forest Service Program Manager Contact with a tentative work schedule for that particular site. Specifically, this will include, at a minimum, dates the Cooperator, or field crews, will be at the project site and principal contact at the site.

1.6 Camping: Camping may be allowed on National Forest lands under the following conditions:

- A. Sites are approved by the US Forest Service Program Manager Contact.
- B. Gray (wash) water shall be drained into a percolating hole at least 100 feet from water sources and buried after use with no washing of clothes or kitchen items directly in the water source.
- C. All fire regulations are observed.

2 TECHNICAL SPECIFICATIONS

2.0 The Cooperator shall develop and implement curriculum involving field study design, methodology, and data interpretation utilizing data collected from sections 2.1 and 2.2 below.

2.0.1 Graduate and undergraduate students will conduct additional field studies in association with the data collected. Study design, methodology, and data interpretation will be incorporated. Theses and dissertations will be products associated with these studies.

2.0.2 Presentations by the Principal Investigators, graduate students, and undergraduate students will be conducted at a Nationally-recognized Professional Society meeting. Creation of abstracts, posters, and journal manuscripts will be products associated with these meetings.

2.1 The Cooperator shall complete a survey of all forested areas and all currently known territories within each study area according to survey protocols previously established at each study area. The scientific methods and analysis will be consistent with those found in Franklin et al. 1996 (Studies in Avian Biology 17: page 12-20).

2.1.1 Once owls are located, the sex, age, social status, and reproductive status of individuals will be determined according to standardized survey protocols.

2.1.2 Successfully nesting pairs will be rechecked to determine the number of successfully fledged young.

2.1.3 All previously banded individuals will be rechecked, and bands will be re-identified, wherever possible.

2.1.4 Unmarked individuals (i.e., juvenile, sub-adult, and adult owls) will be captured and banded.

2.2 At the completion of the field season, an analysis of demographic traits and rates of population change consistent with the available data will be conducted.

2.2.1 For the study area, all data from prior years will be used in the analysis to determine the survival and reproduction of individuals in addition to calculating a refined estimate of the population change over the period of the study.

2.2.2 A final report, which summarizes data from current and prior years will be prepared and submitted to the Forest Service Ecosystem Management Staff in the Vallejo Regional Office by March 31, 2015. This report shall provide recommendations on how impacts to the owl or its habitat may be reduced. Both parties, prior to submittal, will mutually agree upon the format and specific data included in the final report.

2.2.3 Cooperator shall provide the Forest Service a copy of field data at the end of each field season. Data shall be provided in electronic format utilizing an agreed upon format provided in Microsoft Excel via electronic means, DVD, or compact disk. The table consists with a minimum of the following information: observation, capture, and reproductive information. The files shall consist of the following fields and format:

A. Observation, Capture, and Reproduction Information

- a. Study area identifier (Local ID)
- b. Location (territory acronym and UTM coordinates)
- c. Date (mm/dd/yy), including Start and End Times
- d. Sex (male or female)
- e. Age class (juvenile, sub-adult, or adult).
- f. Band number (Fish & Wildlife No.)
- g. Color marks for all birds identified (left and right tarsus color band combinations).
- h. Social status (paired or single)
- i. Nesting status (nesting or non-nesting)
- j. Reproductive output (number of young fledged)
- k. Observer name and experience level
- l. Accuracy of spatial information
- m. Observation method and activity

B. Incidental Information

- a. Barred Owl information and locations
- b. Information and locations of other species observed or detected

2.3 The following Schedule of Deliverables will be adhered to:

<u>Date</u>	<u>Report Title</u>
1 May 14	Progress of Surveys Discuss level of progress made. Explain any problems with staffing, vehicles, weather, etc. Complete Items 1-4 in Table 1.
1 Jun 14	General Assessment of Nesting Season Discuss general impression of owl reproductive activity relative to previous years and environmental factors. Complete items 1-7 in Table 1.
1 Jul 14	General Assessment of Fledging Discuss reproductive activity, success, as well as any problems encountered during the season. Include items 1-12 in Table 1.
1 Oct 14	General Assessment of Owl Breeding and Banding Season Discuss reproductive success and banding for season. Include items 1-18 in Table 1.
1 Jan 15	Progress of Data Entry
28 Feb 15	Draft Written Report
31 Mar 15	Final Written Report as defined in Section 2.2.2 Include estimates of lambda over all years of study area. Field data as defined in Section 2.2.3 An electronic copy of all posters, abstracts, and thesis completed to date. List of students who participated within the field or office to date. List of coursework instituted based upon this work completed to date. A summary of monitoring results, management applications, technology transfer activities, and plans for an annual monitoring report.

This Schedule of Deliverables will be updated for each year that the agreement may be renewed.

3 Payment and Invoicing

3.1 All payment invoices submitted by the Cooperator must clearly identify the study site for which payment is being requested.

3.2 Final payment under this Agreement will not be made until the Forest Service has accepted the final report described in 2.2.2 or the field data forms described in 2.2.3. Ten (10) percent of the total agreement amount will be withheld until final acceptance.

Table 1. Spotted Owl Demography Field Progress Summary

Number	Information	Date of Report		
1	Number of surveyed territories			
2	Number of occupied territories			
3	Number of territories where reproductive status has been assessed			
4	Number of nest trees located			
5	Proportion of pairs that are nesting			
6	Number of territories occupied by pairs			
7	Number of territories occupied by single birds			
8	Proportion of pairs with fledged young			
9	Number of fledged young observed			
10	Number of pairs not assessed for reproduction			
11	Number of single birds not assessed for reproduction			
12	Number of failed nests			
13	Number of adults identified			
14	Number of subadults identified			
15	Number of new birds banded (by age class: Ad, SA, J)			
16	Percent of territories completely surveyed			
17	Estimated proportion of study area surveyed			
18	Observed mortality (number of birds found dead)			