

From: [Augustine, David](#)
To: [Rutherford, Tait - FS](#)
Subject: RE: Mountain plover SCC evaluation, plus one additional question
Date: Thursday, May 23, 2019 11:41:49 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

I do not. You could look in Dinsmore et al. 2005 and maybe Childers paper for some details. I don't know what available up there for post-2005, but maybe contact Dinsmore?
david

From: Rutherford, Tait - FS
Sent: Wednesday, May 22, 2019 2:00 PM
To: Augustine, David <David.Augustine@ARS.USDA.GOV>; Courtney Jean Duchardt <cduchard@uwyo.edu>
Cc: Kozlowski, Steve -FS <steve.kozlowski@usda.gov>; Young, Tiffany A -FS <tiffany.young@usda.gov>
Subject: RE: Mountain plover SCC evaluation, plus one additional question

Thanks for the comments, David! Regarding the viability issue, we are definitely still attempting to pin down what we need to write in the plan to convincingly ensure viability. We have some planned upcoming discussions about it, and we will make sure to take into account your points below. I have one question on your point #1 below: Do you know of anyone who might have long-term monitoring data on the area of prairie dog colonies in Phillips County over time (i.e. to determine the size attributes over time of the set of colonies that has sustainably supported that population of plovers)?

Thanks, again, for all your help.

Tait



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From: Augustine, David

Sent: Wednesday, May 22, 2019 10:01 AM

To: Rutherford, Tait - FS <tait.rutherford@usda.gov>; Courtney Jean Duchardt <cduchard@uwyo.edu>

Cc: Kozlowski, Steve -FS <steve.kozlowski@usda.gov>; Young, Tiffany A -FS <tiffany.young@usda.gov>

Subject: RE: Mountain plover SCC evaluation, plus one additional question

Tait et al.-

I switched my field schedule around due to the snow, so reviewed your document today. I am quite impressed with the breadth and level of detail of your review of the literature, and overall think this document does an excellent job of synthesizing the current state of knowledge on mountain plover ecology and conservation. I provide some minor comments on your interpretation of the Uresk (2017) study in the attached version of the document. This has implications for conclusions about the role of livestock grazing in creating plover habitat. It was also interesting to see that this document does not address the concept of population viability, which is certainly a difficult subject to approach for mountain plovers. If you do have to approach that at some point, I would note that:

- 1) The only two localities where we have evidence of a relatively sustainable population over time (not necessarily stable, but at least persistent over two or more decades) is in Phillips County, Montana (studies by Dinsmore and colleagues, where plovers are breeding almost exclusively on prairie dog colonies) and in South Park, CO (studies by Wunder and colleagues, where suitable habitat appears to be maintained by aridity, as the annual precipitation is lower than anywhere in the Great Plains, and bare soil exposure is high).
- 2) Courtney Duchardt, Jeff Beck, and I are in the process of submitting a manuscript for peer review that examines mountain plover nest survival rates on Thunder Basin. We will keep you apprised of the status of this manuscript, and provide a copy if and when it has been accepted at a journal.
- 3) Population models indicate that in addition to nest survival, brood survival rates are a critical component of mountain plover population dynamics. The study by Dreitz (2009) is especially important in this regard, as it is one of the only comprehensive studies on brood survival, and shows dramatically high survival rates for broods raised on prairie dog colonies as compared to other habitats. We do not have any data on this subject specifically for Thunder Basin.

Please let me know if I can provide additional help as you go through the planning process.

Thanks,

David

David Augustine

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From: Rutherford, Tait - FS
Sent: Thursday, May 16, 2019 4:01 PM
To: Courtney Jean Duchardt <cduchard@uwyo.edu>; Augustine, David <David.Augustine@ARS.USDA.GOV>
Cc: Kozlowski, Steve -FS <steve.kozlowski@usda.gov>; Young, Tiffany A -FS <tiffany.young@usda.gov>
Subject: Mountain plover SCC evaluation, plus one additional question

Hi Courtney and David,

A while back, I asked if you would be willing to review the mountain plover SCC evaluation if you had the time, and I believe you had tentatively agreed. I've finally finished a draft that I'm ready to send your way. We would greatly appreciate it if you are still willing to look it over and give any comments on the info, let us know if there's any literature or facts that we've missed or misconstrued, or give us any general comments to make it better. (Note: the formatting on the images might be a little odd. I'm still trying to figure out avoiding weird breaks in paragraphs under some of the images.)

I also have one additional question that I was wondering whether you might be able to answer off hand. In preparing the McCown's longspur evaluation, I saw that the mid-90s data that David used for the Augustine and Baker (2013) paper showed a relatively high density of McCown's on colonies on the TBNG, while Courtney's surveys from the past few years found no McCown's on colonies, and few McCown's elsewhere on the grassland. Do you know why the surveys might have produced such different abundances for that species? (The discrepancy may not exist [it looks like the 95% CI in David's work is pretty large], but I thought I'd ask anyway.)

Thanks so much for all your help! Let me know if you have any questions about the plover evaluation. I hope it's not too far off base.

Regards,

Tait



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