

From: (b) (6)
To: [Barrett, Justin S](#)
Subject: [EXTERNAL] Re: Tiehm's herbivory report
Date: Friday, December 4, 2020 8:35:24 PM

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Thanks Justin,

I'll read this more carefully and work it into my discussions. It is interesting to hear that the antelope squirrels are the primary culprits; that is my feeling for what is chewing on the cactus and Joshua trees.

Cheers, Jim

Sent from my iPhone

On Dec 4, 2020, at 4:46 PM, Barrett, Justin S <justin_barrett@fws.gov> wrote:

Good afternoon Mr. Boone,

I wanted to bring this report and statement to your attention. These have been posted on our Reno Fish and Wildlife website [Home | Reno Fish & Wildlife Office \(fws.gov\)](#) but there may be some problems with the links so I wanted to make sure the information was appropriately disseminated.

Thank you!

Justin Barrett

Environmental DNA analysis supports conclusion that damage to rare Tiehm's buckwheat plants was caused by herbivory

December 4, 2020 - An environmental DNA (eDNA) analysis conducted on damaged Tiehm's buckwheat roots, nearby soils and rodent scat strongly links small

mammal herbivory to the widespread damage and loss of Tiehm's buckwheat reported in September 2020. Tiehm's buckwheat is a rare plant found only near Rhyolite Ridge in Esmeralda County, Nevada.

To determine the cause of the damage, the U.S. Fish and Wildlife Service and the Bureau of Land Management contracted a researcher affiliated with Southern Utah University to conduct an independent review and analyze materials collected from the area for eDNA. The analysis found squirrel, deer and a small trace of human DNA on root samples and soils near damaged or dead plants.

Buckwheat DNA was detected in the scat, and the genetic signatures were a strong match (96.9-99.8 percent) to ground squirrels. This coupled with known white-tailed antelope ground squirrel populations at Rhyolite Ridge, burrowing at damaged plants, and rodent bite marks on plant roots strongly supports that ground squirrels were responsible for the damage. Current drought conditions likely motivated the rodents to seek moisture by consuming the shallow taproots of mature buckwheat plants. This is the first time herbivory was documented on Tiehm's buckwheat and its significance depends not only on its frequency and intensity, but whether damaged plants can recover and survive.

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>

<Outlook-c03gmuru.png>

<FINAL_Tiehms_eDNA_report_20201201.pdf>

From: [Grady, Benjamin](#)
To: [Barrett, Justin S](#)
Subject: [EXTERNAL] Re: Tiehm's herbivory report
Date: Monday, December 7, 2020 6:56:20 AM
Attachments: [Outlook-1f2mgoz.png](#)

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Justin,

Thank you for sharing this report with me. I am happy to hear that this matter is being thoroughly investigated.

Ben

On Fri, Dec 4, 2020 at 2:58 PM Barrett, Justin S <justin_barrett@fws.gov> wrote:

Good afternoon,

I wanted to bring this report and statement to your attention. These have been posted on our Reno Fish and Wildlife website but there may be some problems with the links so I wanted to make sure the information was appropriately disseminated.

Thank you!

Environmental DNA analysis supports conclusion that damage to rare Tiehm's buckwheat plants was caused by herbivory

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Buckwheat DNA was detected in the scat, and the genetic signatures were a strong match (96.9-99.8 percent) to ground squirrels. This coupled with known white-tailed antelope ground squirrel populations at Rhyolite Ridge, burrowing at damaged plants, and rodent bite marks on plant roots strongly supports that ground squirrels were responsible for the damage. Current drought conditions likely motivated the rodents to seek moisture by consuming the shallow taproots of mature buckwheat plants. This is the first time herbivory was documented on Tiehm's buckwheat and its significance depends not only on its frequency and intensity, but whether damaged plants can recover and survive.

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Welcome to the Reno Fish and Wildlife Office! The Reno Office protects and conserves endangered fish, wildlife, plants, and their habitats in Northern Nevada, the Eastern Sierra and Tahoe Basin for the continuing benefit of the American people.

www.fws.gov

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--

Benjamin Grady, PhD
202 Farr Hall
Assistant Professor of Biology
Ripon College

300 W. Seward St.
Ripon, WI 54971
(p) 920-748-8113



Visit us at ripon.edu

From: [Barrett, Justin S](#)
To: (b) (6)
Subject: Fw: [EXTERNAL] Rodent damage
Date: Monday, January 4, 2021 9:26:45 AM
Attachments: [Outlook-2skrgekq.png](#)

Hello again Dr. Boone,

I'm passing this along because you had expressed a continued interest in documenting the herbivory events that occurred to Tiehm's buckwheat and apparently other species this last year. If you have any interest in finding out more about the Arizona creosote case shown here, feel free to reach out to Dr. Grant. She was the researcher who conducted eDNA analysis on Tiehms.

A couple weeks ago, my family and I camped in Beatty. We drove down there in the dark but coming back I noticed the impacts to Joshua trees that you'd mentioned in your blog post. It was 27 degrees out, snowing and blowing so I didn't stop but the impacts are quite apparent. It will be interesting to see how this affects the survival of these plants.

Happy New Year!

Justin

Justin Barrett
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<https://www.fws.gov/reno/>



From: Jackie Grant <jacquelinegrant@suu.edu>
Sent: Monday, December 21, 2020 11:33 AM
To: Kulpa, Sarah <sarah_kulpa@fws.gov>
Subject: [EXTERNAL] Rodent damage

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Sarah,

Attached is a photo of some rodent damage to creosote from the Arizona Strip. I'm sending it because I keep getting asked if I've ever seen anything like the Tiehm's buckwheat incident. Now I can say yes. This was right next to a packrat shelter.

Anyway, if you could ask biologists in your network to keep an eye out for any similar damage, that would be great. I'd like to document as much regional rodent damage as I can.

Thanks, and have a good winter break!



From: [Barrett, Justin S](#)
To: [Young, Adele R](#)
Subject: Fw: [EXTERNAL] Tiehm's eDNA study
Date: Friday, November 13, 2020 9:10:59 AM
Attachments: [FWS Tiehms eDNA report 20201111.pdf](#)
[Outlook-la5r4xk.png](#)

Sorry, I guess that was a failed attempt at using my phone for work. Not the first time!

(b) (5)



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<https://www.fws.gov/reno/>



From: Kulpa, Sarah <sarah_kulpa@fws.gov>
Sent: Thursday, November 12, 2020 3:26 PM
To: Heston, Sophia M <sophia_heston@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>; Crosby, Brandon J <bcrosby@blm.gov>; Wickham, Perry B <pwickham@blm.gov>; Distel, Scott J <sdistel@blm.gov>; kaceykc <kaceykc@forestry.nv.gov>; jchrist@forestry.nv.gov <jchrist@forestry.nv.gov>; James Morefield <jdmore@heritage.nv.gov>; Rebecca Sawyer <rsawyer@ioneer.com>; Kris Kuyper <kris@emstrats.com>; Elizabeth A Leger <lelizabeth@unr.edu>; Jamey Wilcher <jdwilcher13@gmail.com>
Cc: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Subject: Fw: [EXTERNAL] Tiehm's eDNA study

Hi all,

The much anticipated eDNA result report is in, see attached :)

Cheers,

Sarah

Sarah Kulpa
Restoration Ecologist/Botanist
Reno Fish and Wildlife Office
1340 Financial Blvd. Suite 234
Reno, Nevada 89521
(775) 861-6340

From: Jacqueline Grant <jacquelinegrant@suu.edu>
Sent: Thursday, November 12, 2020 3:11 PM
To: Kulpa, Sarah <sarah_kulpa@fws.gov>
Subject: [EXTERNAL] Tiehm's eDNA study

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Sarah,

Attached please find the Tiehm's buckwheat eDNA report based on soil, root, and pellet samples that were collected onsite on 10/2/20.

There is a lot of raw data that is not in the report. Please let me know if you'd like access to the spreadsheets, or if you would like me to add them to the report.

Cheers,
Jackie

--

Dr. Jacqueline Grant
Associate Professor of Biology
Museum Curator (SCA 105A)
[Garth and Jerri Frehner Museum of Natural History](#)
Southern Utah University
Cedar City, UT 84720
USA
<http://suu.edu/cose/museum/>
<http://suu.edu/faculty/jacquelinegrant/>

ph: 435-865-8549
email: jacquelinegrant@suu.edu

From: [Gilkeson, Joanna C](#)
To: [Jackson, Marc A](#); [Barrett, Justin S](#)
Subject: Fw: Coordination
Date: Monday, November 16, 2020 2:02:00 PM

FYI.

Joanna Gilkeson (she/her)
Public Affairs Specialist
Reno, Nevada
U.S. Fish and Wildlife Service
Office: 775/861-6336
Cell: 760/473-3954
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From: Bush, Christopher I <cbush@blm.gov>
Sent: Monday, November 16, 2020 1:58 PM
To: Maciel, Martha L <martha_maciel@fws.gov>
Cc: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Harvey, Jess D <jharvey@blm.gov>; Rose, Christopher S <crose@blm.gov>
Subject: Re: Coordination

Martha,

Great! And thanks for the discussion last week. For coordination purposes, I am including Jess Harvey from our Battle Mountain District and Chris Rose from NSO.

Once we have a draft we are happy with between the teams, please send up to me and I will clear with Jon here and perhaps you can clear with your leadership, Martha?

Let me know what works best for you.

Chris

Christopher Bush
Chief, Communications
Bureau of Land Management - Nevada
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cbush@blm.gov
www.blm.gov/nv

From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Tuesday, November 10, 2020 4:14 PM

To: Bush, Christopher I <cbush@blm.gov>
Cc: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Subject: Coordination

Hi Chris,

Thanks again for taking my call today to discuss communication approach to the Tiehms Buckwheat issue. We are still very interested in issuing a joint news release once the eDNA and investigation are completed.

We're hearing that the eDNA may be completed as soon as late this week. If BLM agrees, we'd like to work on the draft comms products/news release.

Joanna is our local PAO in Reno working on this issue so I've cc'd her.

Martha

Martha Maciel

Assistant Regional Director, External Affairs
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From: [Barrett, Justin S](#)
To: [Young, Adele R](#)
Subject: Fw: Tiehm's buckwheat eDNA news release for review
Date: Thursday, November 19, 2020 9:19:30 AM
Attachments: [Outlook-fifkqiw.png](#)
[Outlook-pbjvix5p.png](#)

Good morning Adele! (b) (5)

[REDACTED]

Thanks!

Justin Barrett
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From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Thursday, November 19, 2020 9:16 AM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>
Cc: Kulpa, Sarah <sarah_kulpa@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>; Abele, Steve <steve_abele@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

I'm not surprised and, honestly I'm just fine with that decision. I would like to however, still find a way to get the final eDNA report to CBD (when we get it). This not only demonstrates that we've taken this situation seriously but that we now have solid evidence to back up the herbivory theory. E (b) (5)

[REDACTED]

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Phone: 775-861-6338

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From: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Sent: Thursday, November 19, 2020 9:05 AM
To: Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>
Cc: Kulpa, Sarah <sarah_kulpa@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>; Abele, Steve <steve_abele@fws.gov>
Subject: Fw: Tiehm's buckwheat eDNA news release for review

FYI! Justin, I know literally told you yesterday that BLM was in for a joint news release, but guess its a no go.

Joanna Gilkeson (she/her)
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From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Thursday, November 19, 2020 8:22 AM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Subject: Fw: Tiehm's buckwheat eDNA news release for review

Good morning, Joanna,
Here's the latest from BLM... no joint release. I'll connect with Paul and let you know where we go from here. Plan B - FWS news release?

From: Bush, Christopher I <cbush@blm.gov>
Sent: Thursday, November 19, 2020 8:15 AM
To: Maciel, Martha L <martha_maciel@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Martha,

I had a discussion with Jon yesterday afternoon on this and he is not convinced a joint release

is the best tactic at this time - we are satisfied with the current state of the media/information space with regard to this issue. Sending out a release may just kick up dust and bring in queries we can't answer while facing litigation.

I told him that your boss may be reaching out directly to him to discuss and he's more than happy to have that discussion.

Apologies for the news release "whiplash" on this.

I'm heading into several meetings this morning but clear late this afternoon if you want to discuss some more.

Best,
Chris

Christopher Bush
Director of Communications
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www.blm.gov/nv

From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Wednesday, November 18, 2020 12:39:03 PM
To: Bush, Christopher I <cbush@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Hi Chris,

I totally understand, busy times. Can we try 8:30 am tmrw? We'd like to move the NR to our regional leadership tmrw morning so we can move to HQ before Monday. Holiday week will create possible delays.

I'll see if I can articulate below:

Will BLM leave the LE statement in the NR or should we just focus on eDNA? As currently written, the LE statement seems a bit confusing and raises more questions.

Martha Maciel

Assistant Regional Director, External Affairs
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From: Bush, Christopher I <cbush@blm.gov>
Sent: Wednesday, November 18, 2020 11:49 AM

To: Maciel, Martha L <martha_maciel@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Martha,

Any chance we can shift this conversation to tomorrow at some time? I have just had something pop up and won't be available this afternoon. My apologies.

Chris

Christopher Bush
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Bureau of Land Management - Nevada
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From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Wednesday, November 18, 2020 8:48 AM
To: Bush, Christopher I <cbush@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

12:30 works. I have interviews from 1-5pm. Thanks Chris!

Martha Maciel

Assistant Regional Director, External Affairs
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From: Bush, Christopher I <cbush@blm.gov>
Sent: Wednesday, November 18, 2020 8:43 AM
To: Maciel, Martha L <martha_maciel@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Martha,

My apologies, but it seems my response last night was not sent to you (iphone glitch, I guess). I am in meetings for most of the morning today and could be available in the early afternoon after a 1230 awards ceremony, if that works?

Christopher Bush
Chief, Communications
Bureau of Land Management - Nevada
Office: 775-861-6629
Cell: 775-225-9532
cbush@blm.gov
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From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Tuesday, November 17, 2020 4:51 PM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Harvey, Jess D <jharvey@blm.gov>
Cc: Anderson, Erica L <erica.anderson@sol.doi.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I <cbush@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Thank you Jess and Joanna for your work on the news release. I think it looks good and adding a brief statement about next steps is a good approach.

Chris - I have a few questions about the LE investigation and the statement provided in the news release. Do you have time in the morning for a quick call?

Martha Maciel

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From: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Sent: Tuesday, November 17, 2020 11:59 AM
To: Harvey, Jess D <jharvey@blm.gov>
Cc: Maciel, Martha L <martha_maciel@fws.gov>; Anderson, Erica L <erica.anderson@sol.doi.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I <cbush@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Hi Jess,

Thank you for the quick review!

I agree about the next steps approach. I'll add a sentence about the 12-month finding and say

we're working with partners to come up with solutions. If BLM could add a sentence about what they're doing that would be great.

~ Joanna

Joanna Gilkeson (she/her)
Public Affairs Specialist
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U.S. Fish and Wildlife Service
Office: 775/861-6336
Cell: 760/473-3954
<https://www.fws.gov/reno/>

From: Harvey, Jess D <jharvey@blm.gov>
Sent: Tuesday, November 17, 2020 11:51 AM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Cc: Maciel, Martha L <martha_maciel@fws.gov>; Anderson, Erica L <erica.anderson@sol.doi.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I <cbush@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>
Subject: RE: Tiehm's buckwheat eDNA news release for review

Joanna,

This looks good to me and the verbiage is that which was previously approved.

I think the BLM will probably want to keep the investigation part in, but I will defer to leadership for the final answer on that.

In my opinion, I think it might be good to add the sentence at the end that talks about the next steps. That way it shows that we are continuing to address the issue even after we have these answers.

Respectfully,

Jess D. Harvey
Public Affairs Specialist
Battle Mountain District Office
50 Bastian Road
Battle Mountain, Nevada 89820
Work: 775.635.4054

From: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Sent: Tuesday, November 17, 2020 11:28 AM
To: Harvey, Jess D <jharvey@blm.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I <cbush@blm.gov>

Cc: Maciel, Martha L <martha_maciel@fws.gov>

Subject: Tiehm's buckwheat eDNA news release for review

Hi BLM colleagues,

Please see the attached news release regarding Tiehm's buckwheat. I have added several paragraphs about the eDNA analysis, but did not leave them in track changes as the document would have been disaster! For your information, I modified the subtitle and opening paragraph but did not change subsequent statements about the BLM investigations.

Next steps:

1. BLM, would you like to keep the language about the investigations in this release or strictly limit it to information about the eDNA?
2. Do we want to add a section about next steps? FWS is currently conducting the 12-month finding for Tiehm's and we can add a sentence about that.
3. Send your edits to me as soon as possible, and I will update the document. We are hoping to be able to send this out just after Thanksgiving.
4. Once the document is updated, Martha and Chris will route through our respective channels for review.

Please let me know if you have any questions or concerns about the document. Thank you in advance for the coordination!

Thank you,
Joanna

Joanna Gilkeson (she/her)
Public Affairs Specialist
Reno, Nevada
U.S. Fish and Wildlife Service
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Cell: 760/473-3954
<https://www.fws.gov/reno/>

From: [Barrett, Justin S](#)
To: (b) (6) m
Subject: Fw: Tiehm's herbivory report
Date: Friday, December 4, 2020 4:46:07 PM
Attachments: [FINAL Tiehms eDNA report 20201201.pdf](#)
[Outlook-c03gmuru.png](#)

Good afternoon Mr. Boone,

I wanted to bring this report and statement to your attention. These have been posted on our Reno Fish and Wildlife website [Home | Reno Fish & Wildlife Office \(fws.gov\)](#) but there may be some problems with the links so I wanted to make sure the information was appropriately disseminated.

Thank you!

Justin Barrett

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December 4, 2020 - An environmental DNA (eDNA) analysis conducted on damaged Tiehm's buckwheat roots, nearby soils and rodent scat strongly links small mammal herbivory to the widespread damage and loss of Tiehm's buckwheat reported in September 2020. Tiehm's buckwheat is a rare plant found only near Rhyolite Ridge in Esmeralda County, Nevada. To determine the cause of the damage, the U.S. Fish and Wildlife Service and the Bureau of Land Management contracted a researcher affiliated with Southern Utah University to conduct an independent review and analyze materials collected from the area for eDNA. The analysis found squirrel, deer and a small trace of human DNA on root samples and soils near damaged or dead plants.

Buckwheat DNA was detected in the scat, and the genetic signatures were a strong match (96.9-99.8 percent) to ground squirrels. This coupled with known white-tailed antelope ground squirrel populations at Rhyolite Ridge, burrowing at damaged plants, and rodent bite marks on plant roots strongly supports that ground squirrels were responsible for the damage. Current drought conditions likely motivated the rodents to seek moisture by consuming the shallow taproots of mature buckwheat plants. This is the first time herbivory was documented on Tiehm's buckwheat and its significance depends not only on its frequency and intensity, but whether damaged plants can recover and survive.

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office

Phone: 775-861-6338

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From: [Barrett, Justin S](#)
To: [Young, Adele R](#)
Cc: [Gilkeson, Joanna C](#)
Subject: Fw: Updated eDNA report
Date: Wednesday, December 2, 2020 11:26:50 AM
Attachments: [Grant FINAL FWS Tiehms eDNA report 20201201.pdf](#)
[Outlook-c3034jvi.png](#)

Hello Adele!

(b) (5)

A large black rectangular redaction box covers the majority of the email body. The text "(b) (5)" is written in red at the top left of this redacted area. The redaction extends across the width of the email body and down for several lines.

Thanks!

Justin

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Kulpa, Sarah <sarah_kulpa@fws.gov>
Sent: Wednesday, December 2, 2020 8:51 AM
To: James Morefield <jdmore@heritage.nv.gov>; Kris Kuyper <kris@emstrats.com>; Beth Leger <ealeger@gmail.com>; Jamey Wilcher <jdwilcher13@gmail.com>; Crosby, Brandon J <bcrosby@blm.gov>; Distel, Scott J <sdistel@blm.gov>; Wickham, Perry B <pwickham@blm.gov>; jchrist@forestry.nv.gov <jchrist@forestry.nv.gov>; Kacey KC <kaceykc@forestry.nv.gov>; Rebecca Sawyer <rsawyer@ioneer.com>; Heston, Sophia M <sophia_heston@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>
Cc: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Subject: Updated eDNA report

Hi all,

Jackie updated the eDNA report and I am sharing that version for your files. Nothing has changed in terms of analyses and results; she made minor edits and included her contact info and lit cited. Jackie and Kris have been trying to get in touch with the researchers at Texas A&M to have them upload the Tiehm's trnl barcodes to BOLD or GenBank. If that happens, Jackie will most likely update this report again with that information. Let me know if you have any questions.

Cheers,

Sarah

Sarah Kulpa
Restoration Ecologist/Botanist
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Reno, Nevada 89521
(775) 861-6340

From: (b) (6)
To: Barrett, Justin
Subject: Re: [EXTERNAL] Rodent damage
Date: Monday, January 4, 2021 10:32:03 AM

Hi Justin,

Thanks for passing this along. Since the Tiehm's buckwheat event, I've been documenting herbivory to all kinds of species all over the Mojave desert, including Northern Arizona (Parashant). Indeed, it will be interesting to see how this affects the survival of these plants.

I've uploaded hundreds of observations to the [iNaturalist](#) photo database. To recover these images in iNat, click Explore, then Filters. On the Filters screen, in the "Description/Tags" field, enter "rodent damage". To find only my observation, click the button "More Filters", then in the "Person" field, enter my user name: (b) (6). Currently, that brings up 329 observations of 20 species. I'll add a few more today.

I'll follow up with Dr. Grant.

Stay well, Jim

Jim Boone
Las Vegas, NV
birdandhike.com

On Jan 4, 2021, at 9:26 AM, Barrett, Justin S <justin_barrett@fws.gov> wrote:

Hello again Dr. Boone,

I'm passing this along because you had expressed a continued interest in documenting the herbivory events that occurred to Tiehm's buckwheat and apparently other species this last year. If you have any interest in finding out more about the Arizona creosote case shown here, feel free to reach out to Dr. Grant. She was the researcher who conducted eDNA analysis on Tiehms.

A couple weeks ago, my family and I camped in Beatty. We drove down there in the dark but coming back I noticed the impacts to Joshua trees that you'd mentioned in your blog post. It was 27 degrees out, snowing and blowing so I didn't stop but the impacts are quite apparent. It will be interesting to see how this affects the survival of these plants.

Happy New Year!

Justin

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>

<Outlook-2skrgekq.png>

From: Jackie Grant <jacquelinegrant@suu.edu>
Sent: Monday, December 21, 2020 11:33 AM
To: Kulpa, Sarah <sarah_kulpa@fws.gov>
Subject: [EXTERNAL] Rodent damage

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Sarah,

Attached is a photo of some rodent damage to creosote from the Arizona Strip. I'm sending it because I keep getting asked if I've ever seen anything like the Tiehm's buckwheat incident. Now I can say yes. This was right next to a packrat shelter.

Anyway, if you could ask biologists in your network to keep an eye out for any similar damage, that would be great. I'd like to document as much regional rodent damage as I can.

Thanks, and have a good winter break!

<IMG_8222.jpg>

From: [Barrett, Justin S](#)
To: [Bierce, Pamela](#)
Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan
Date: Friday, December 4, 2020 12:16:25 PM
Attachments: [Outlook-rwndto4r.png](#)

Hi Pam!

Thank you for help on this. I've been caught up with meeting all morning and am moving towards my obligations here. Did you get an answer to the questions related to a press statement? (b) (5)

Again, thank you!

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Bierce, Pamela <pamela_bierce@fws.gov>
Sent: Friday, December 4, 2020 10:28 AM
To: Kulpa, Sarah <sarah_kulpa@fws.gov>; Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Meredith, Lauren K <lauren_meredith@fws.gov>; Heil, John C <john_heil@fws.gov>; Maciel, Martha L <martha_maciel@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan

FYI..the link is still does not seem to be accessible to those outside of FWS. Downloaded doc and will try sending it this way.

Pam Bierce
U.S. Fish & Wildlife Service—California, Nevada and Klamath Basin
External Affairs
(916) 414-6542 office or (916) 207- 8385 cell

"Outside is the best side"

From: Kulpa, Sarah <sarah_kulpa@fws.gov>

Sent: Friday, December 4, 2020 10:10 AM

To: Bierce, Pamela <pamela_bierce@fws.gov>; Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Meredith, Lauren K <lauren_meredith@fws.gov>; Heil, John C <john_heil@fws.gov>; Maciel, Martha L <martha_maciel@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>

Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan

I just checked on my personal and work computer, and I can access both links that Joanna sent out this morning.

Sarah Kulpa

Restoration Ecologist/Botanist

Reno Fish and Wildlife Office

1340 Financial Blvd. Suite 234

Reno, Nevada 89521

(775) 861-6340

From: Bierce, Pamela <pamela_bierce@fws.gov>

Sent: Friday, December 4, 2020 10:06 AM

To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Kulpa, Sarah <sarah_kulpa@fws.gov>; Meredith, Lauren K <lauren_meredith@fws.gov>; Heil, John C <john_heil@fws.gov>; Maciel, Martha L <martha_maciel@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>

Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan

Good morning,

I received an email from E&E News regarding the link to the report doesn't seem to be working. I can't access it either. Has anyone else had issues?

Thanks,

Pam

Pam Bierce

U.S. Fish & Wildlife Service-California, Nevada and Klamath Basin

External Affairs

(916) 414-6542 office or (916) 207- 8385 cell

"Outside is the best side"

From: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>

Sent: Thursday, December 3, 2020 4:06 PM

To: Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Kulpa,

Sarah <sarah_kulpa@fws.gov>; Meredith, Lauren K <lauren_meredith@fws.gov>; Bierce, Pamela <pamela_bierce@fws.gov>; Heil, John C <john_heil@fws.gov>; Maciel, Martha L <martha_maciel@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>

Subject: Tiehm's buckwheat eDNA Final Outreach Plan

Hi all,

I just connected with the regional office and here is the plan for tomorrow!

- 1) **Website posting:** We will post the report and the final approved summary on our website first thing tomorrow morning. I will send the link to this group when it is live.
- 2) **Public Affairs coverage for 12/4:** I will be out of the office after I post this on the website. John Heil has graciously agreed to cover me (thank you John!) with assistance from Martha and Pam who are also on leave (thank you Martha and Pam). My out of office message will redirect people to John.
- 3) **Main POC in Reno:** Sarah Kulpa will be your main contact, with Justin available when and if needed.
- 4) **Sharing with Partners:** Justin will send to our partners, and notify this group after he is done so Pam can send to E&E news. Justin will also send to CBD.
- 5) **Media statement:** We have developed an "if asked media statement" that we can use tomorrow if we get media inquiries. This will be a shorter version of the website summary. E&E news inquired earlier this week, so Pam will send them the link after we disseminate to partners.
- 6) **Notifying congressionals:** Lauren Meredith will send Congressional notifications in the morning.

Order of notifications:

- Partners/ Congressionals - Justin/Lauren
- Select media - Pam
- CBD - Justin

I really hope this covers it all! Please let me know if you have any questions or if I missed any important details. I plan to work for an hour or two in the morning. Reach out if you need *anything*.

Thank you everyone!

Joanna

Joanna Gilkeson (she/her)
Public Affairs Specialist
Reno, Nevada
U.S. Fish and Wildlife Service
Office: 775/861-6336
Cell: 760/473-3954
<https://www.fws.gov/reno/>

From: [Bierce, Pamela](#)
To: [Barrett, Justin S](#)
Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan
Date: Friday, December 4, 2020 1:17:23 PM
Attachments: [Outlook-rwndto4r.png](#)

Hi Justin, I forwarded this message to John since he's working on the statement. I haven't been in that loop today.

Thanks for all your work on this. It will be interesting to see what level of media interest it generates.

Have a great weekend!
Pam

Get [Outlook for iOS](#)

From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Friday, December 4, 2020 12:16:24 PM
To: Bierce, Pamela <pamela_bierce@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan

Hi Pam!

Thank you for help on this. I've been caught up with meeting all morning and am moving towards my obligations here. Did you get an answer to the questions related to a press statement? (b) (5)

Again, thank you!

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Bierce, Pamela <pamela_bierce@fws.gov>
Sent: Friday, December 4, 2020 10:28 AM

To: Kulpa, Sarah <sarah_kulpa@fws.gov>; Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Meredith, Lauren K <lauren_meredith@fws.gov>; Heil, John C <john_heil@fws.gov>; Maciel, Martha L <martha_maciel@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>

Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan

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U.S. Fish & Wildlife Service-California, Nevada and Klamath Basin

External Affairs

(916) 414-6542 office or (916) 207- 8385 cell

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Sent: Friday, December 4, 2020 10:10 AM

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Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan

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Sent: Friday, December 4, 2020 10:06 AM

To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Kulpa, Sarah <sarah_kulpa@fws.gov>; Meredith, Lauren K <lauren_meredith@fws.gov>; Heil, John C <john_heil@fws.gov>; Maciel, Martha L <martha_maciel@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>

Subject: Re: Tiehm's buckwheat eDNA Final Outreach Plan

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Thanks,
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Pam Bierce
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External Affairs
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Sent: Thursday, December 3, 2020 4:06 PM
To: Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>; Kulpa, Sarah <sarah_kulpa@fws.gov>; Meredith, Lauren K <lauren_meredith@fws.gov>; Bierce, Pamela <pamela_bierce@fws.gov>; Heil, John C <john_heil@fws.gov>; Maciel, Martha L <martha_maciel@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>
Subject: Tiehm's buckwheat eDNA Final Outreach Plan

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I really hope this covers it all! Please let me know if you have any questions or if I missed any important details. I plan to work for an hour or two in the morning. Reach out if you need *anything*.

Thank you everyone!

Joanna

Joanna Gilkeson (she/her)
Public Affairs Specialist
Reno, Nevada
U.S. Fish and Wildlife Service
Office: 775/861-6336
Cell: 760/473-3954
<https://www.fws.gov/reno/>

From: [Barrett, Justin S](#)
To: [Young, Adele R](#)
Subject: Re: Tiehm's buckwheat eDNA news release for review
Date: Thursday, November 19, 2020 10:03:09 AM
Attachments: [Outlook-fifkqiqw.png](#)
[Outlook-pbivlx5p.png](#)
[Outlook-nofmf1c.png](#)

(b) (5)

Thanks!

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Young, Adele R <adele.young@sol.doi.gov>
Sent: Thursday, November 19, 2020 9:50 AM
To: Barrett, Justin S <justin_barrett@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

(b) (5)

Adele

Adele R. Young
U.S. Department of the Interior
Office of the Solicitor, Pacific Southwest Region
2800 Cottage Way, E-1712, Sacramento, CA 95825
Phone 916.978.4667
Fax 916.978.5694
adele.young@sol.doi.gov

From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Thursday, November 19, 2020 9:19 AM
To: Young, Adele R <adele.young@sol.doi.gov>
Subject: Fw: Tiehm's buckwheat eDNA news release for review

Good morning (b) (5)

Thanks!

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Thursday, November 19, 2020 9:16 AM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Jackson, Marc A <marc_jackson@fws.gov>
Cc: Kulpa, Sarah <sarah_kulpa@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>; Abele, Steve <steve_abele@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

I'm not surprised and, honestly I'm just fine with that decision. I would like to however, still find a way to get the final eDNA report to CBD (when we get it). This not only demonstrates that we've taken this situation seriously but that we now have solid evidence to back up the herbivory theory. (b) (5) (5)

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Sent: Thursday, November 19, 2020 9:05 AM
To: Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>
Cc: Kulpa, Sarah <sarah_kulpa@fws.gov>; Heston, Sophia M <sophia_heston@fws.gov>; Abele, Steve <steve_abele@fws.gov>
Subject: Fw: Tiehm's buckwheat eDNA news release for review

FYI! Justin, I know literally told you yesterday that BLM was in for a joint news release, but guess its a no go.

Joanna Gilkeson (she/her)
Public Affairs Specialist
Reno, Nevada
U.S. Fish and Wildlife Service
Office: 775/861-6336
Cell: 760/473-3954
<https://www.fws.gov/reno/>

From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Thursday, November 19, 2020 8:22 AM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Subject: Fw: Tiehm's buckwheat eDNA news release for review

Good morning, Joanna,
Here's the latest from BLM... no joint release. I'll connect with Paul and let you know where we go from here. Plan B - FWS news release?

From: Bush, Christopher I <cbush@blm.gov>
Sent: Thursday, November 19, 2020 8:15 AM
To: Maciel, Martha L <martha_maciel@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Martha,

I had a discussion with Jon yesterday afternoon on this and he is not convinced a joint release is the best tactic at this time - we are satisfied with the current state of the media/information space with regard to this issue. Sending out a release may just kick up dust and bring in queries we can't answer while facing litigation.

I told him that your boss may be reaching out directly to him to discuss and he's more than happy to have that discussion.

Apologies for the news release "whiplash" on this.

I'm heading into several meetings this morning but clear late this afternoon if you want to discuss some more.

Best,
Chris

Christopher Bush
Director of Communications
Bureau of Land Management - Nevada
Office: 775-861-6629
Cell: 775-225-9532
cbush@blm.gov
www.blm.gov/nv

From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Wednesday, November 18, 2020 12:39:03 PM
To: Bush, Christopher I <cbush@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Hi Chris,

I totally understand, busy times. Can we try 8:30 am tmrw? We'd like to move the NR to our regional leadership tmrw morning so we can move to HQ before Monday. Holiday week will create possible delays.

I'll see if I can articulate below:

Will BLM leave the LE statement in the NR or should we just focus on eDNA? As currently written, the LE statement seems a bit confusing and raises more questions.

Martha Maciel

Assistant Regional Director, External Affairs
U.S. Fish and Wildlife Service | DOI California-Great Basin Region
(279) 900-5264 | martha_maciel@fws.gov
www.fws.gov/cno | [@USFWS_PSW](https://twitter.com/USFWS_PSW) | [@USFWS](https://twitter.com/USFWS)

From: Bush, Christopher I <cbush@blm.gov>

Sent: Wednesday, November 18, 2020 11:49 AM
To: Maciel, Martha L <martha_maciel@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Martha,

Any chance we can shift this conversation to tomorrow at some time? I have just had something pop up and won't be available this afternoon. My apologies.

Chris

Christopher Bush
Chief, Communications
Bureau of Land Management - Nevada
Office: 775-861-6629
Cell: 775-225-9532
cbush@blm.gov
www.blm.gov/nv

From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Wednesday, November 18, 2020 8:48 AM
To: Bush, Christopher I <cbush@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

12:30 works. I have interviews from 1-5pm. Thanks Chris!

Martha Maciel

Assistant Regional Director, External Affairs
U.S. Fish and Wildlife Service | DOI California-Great Basin Region
(279) 900-5264 | martha_maciel@fws.gov
www.fws.gov/cno | [@USFWS_PSW](https://twitter.com/USFWS_PSW) | [@USFWS](https://twitter.com/USFWS)

From: Bush, Christopher I <cbush@blm.gov>
Sent: Wednesday, November 18, 2020 8:43 AM
To: Maciel, Martha L <martha_maciel@fws.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Martha,

My apologies, but it seems my response last night was not sent to you (iphone glitch, I guess). I am in meetings for most of the morning today and could be available in the early afternoon

after a 1230 awards ceremony, if that works?

Christopher Bush
Chief, Communications
Bureau of Land Management - Nevada
Office: 775-861-6629
Cell: 775-225-9532
cbush@blm.gov
www.blm.gov/nv

From: Maciel, Martha L <martha_maciel@fws.gov>
Sent: Tuesday, November 17, 2020 4:51 PM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>; Harvey, Jess D <jharvey@blm.gov>
Cc: Anderson, Erica L <erica.anderson@sol.doi.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I <cbush@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Thank you Jess and Joanna for your work on the news release. I think it looks good and adding a brief statement about next steps is a good approach.

Chris - I have a few questions about the LE investigation and the statement provided in the news release. Do you have time in the morning for a quick call?

Martha Maciel

Assistant Regional Director, External Affairs
U.S. Fish and Wildlife Service | DOI California-Great Basin Region
(279) 900-5264 | martha_maciel@fws.gov
www.fws.gov/cno | [@USFWS_PSW](https://twitter.com/USFWS_PSW) | [@USFWS](https://twitter.com/USFWS)

From: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Sent: Tuesday, November 17, 2020 11:59 AM
To: Harvey, Jess D <jharvey@blm.gov>
Cc: Maciel, Martha L <martha_maciel@fws.gov>; Anderson, Erica L <erica.anderson@sol.doi.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I <cbush@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>
Subject: Re: Tiehm's buckwheat eDNA news release for review

Hi Jess,

Thank you for the quick review!

I agree about the next steps approach. I'll add a sentence about the 12-month finding and say we're working with partners to come up with solutions. If BLM could add a sentence about what they're doing that would be great.

~ Joanna

Joanna Gilkeson (she/her)
Public Affairs Specialist
Reno, Nevada
U.S. Fish and Wildlife Service
Office: 775/861-6336
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From: Harvey, Jess D <jharvey@blm.gov>
Sent: Tuesday, November 17, 2020 11:51 AM
To: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Cc: Maciel, Martha L <martha_maciel@fws.gov>; Anderson, Erica L <erica.anderson@sol.doi.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I <cbush@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>
Subject: RE: Tiehm's buckwheat eDNA news release for review

Joanna,

This looks good to me and the verbiage is that which was previously approved.

I think the BLM will probably want to keep the investigation part in, but I will defer to leadership for the final answer on that.

In my opinion, I think it might be good to add the sentence at the end that talks about the next steps. That way it shows that we are continuing to address the issue even after we have these answers.

Respectfully,

Jess D. Harvey
Public Affairs Specialist
Battle Mountain District Office
50 Bastian Road
Battle Mountain, Nevada 89820
Work: 775.635.4054

From: Gilkeson, Joanna C <joanna_gilkeson@fws.gov>
Sent: Tuesday, November 17, 2020 11:28 AM
To: Harvey, Jess D <jharvey@blm.gov>; Rose, Christopher S <crose@blm.gov>; Bush, Christopher I

<cbush@blm.gov>

Cc: Maciel, Martha L <martha_maciel@fws.gov>

Subject: Tiehm's buckwheat eDNA news release for review

Hi BLM colleagues,

Please see the attached news release regarding Tiehm's buckwheat. I have added several paragraphs about the eDNA analysis, but did not leave them in track changes as the document would have been disaster! For your information, I modified the subtitle and opening paragraph but did not change subsequent statements about the BLM investigations.

Next steps:

1. BLM, would you like to keep the language about the investigations in this release or strictly limit it to information about the eDNA?
2. Do we want to add a section about next steps? FWS is currently conducting the 12-month finding for Tiehm's and we can add a sentence about that.
3. Send your edits to me as soon as possible, and I will update the document. We are hoping to be able to send this out just after Thanksgiving.
4. Once the document is updated, Martha and Chris will route through our respective channels for review.

Please let me know if you have any questions or concerns about the document. Thank you in advance for the coordination!

Thank you,
Joanna

Joanna Gilkeson (she/her)
Public Affairs Specialist
Reno, Nevada
U.S. Fish and Wildlife Service
Office: 775/861-6336
Cell: 760/473-3954
<https://www.fws.gov/reno/>

From: [Barrett, Justin S](#)
To: [Young, Adele R](#); [Jackson, Marc A](#)
Subject: Re: Tiehm's eDNA Report
Date: Tuesday, December 1, 2020 5:25:21 PM
Attachments: [Outlook-bs21azin.png](#)

Hello Adele,

(b) (5)

Will you be able to join the Tiehm's SSA weekly call tomorrow?

Thanks!

Justin

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Young, Adele R <adele.young@sol.doi.gov>
Sent: Tuesday, December 1, 2020 5:10 PM
To: Jackson, Marc A <marc_jackson@fws.gov>; Barrett, Justin S <justin_barrett@fws.gov>
Subject: Tiehm's eDNA Report

Hello Marc and Justin,

(b) (5)

**Best,
Adele**

Adele R. Young
U.S. Department of the Interior
Office of the Solicitor, Pacific Southwest Region
2800 Cottage Way, E-1712, Sacramento, CA 95825
Phone 916.978.4667
Fax 916.978.5694
adele.young@sol.doi.gov

From: [Young, Adele R](#)
To: [Barrett, Justin S](#); [Jackson, Marc A](#)
Subject: Re: Tiehm's eDNA Report
Date: Tuesday, December 1, 2020 5:36:55 PM
Attachments: [Outlook-bs21azin.png](#)

Hello Justin,

Yes, I will be on the weekly call tomorrow. Thanks for the update. (b) (5)
[REDACTED] We can discuss further tomorrow on the call.

Best,

Adele

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U.S. Department of the Interior
Office of the Solicitor, Pacific Southwest Region
2800 Cottage Way, E-1712, Sacramento, CA 95825
Phone 916.978.4667
Fax 916.978.5694
adele.young@sol.doi.gov

From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Tuesday, December 1, 2020 5:25 PM
To: Young, Adele R <adele.young@sol.doi.gov>; Jackson, Marc A <marc_jackson@fws.gov>
Subject: Re: Tiehm's eDNA Report

Hello Adele,

(b) (5)
[REDACTED]

[REDACTED] Will you be able to join the Tiehm's SSA weekly call tomorrow?

Thanks!

Justin

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service

Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: Young, Adele R <adele.young@sol.doi.gov>
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Phone 916.978.4667
Fax 916.978.5694
adele.young@sol.doi.gov

From: [Sharkey, Anne-Marie](#)
To: [Barrett, Justin S](#)
Subject: Re: Tiehms eDNA report
Date: Wednesday, December 2, 2020 2:26:34 PM
Attachments: [Outlook-sfanobkz.png](#)

Thanks Justin! I haven't been able to release all of my reports yet as I am waiting for my supervisor to approve. I am out tomorrow, but can gently remind my chain of command for approvals. Can you send me what you need for a species report and I can provide you that information ASAP?!

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From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Wednesday, December 2, 2020 2:18:52 PM
To: Sharkey, Anne-Marie <asharkey@blm.gov>
Subject: Tiehms eDNA report

Hello Anne-Marie,

If you haven't already seen this, here we just received the final report for the eDNA on Tiehms's. I've attached it here.

Do you have a report from your investigation that you can share yet?

Our biologist would like cite your investigation in the Species Report if possible.

Thanks!

Justin

Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: [Crosby, Brandon J](#)
To: [Barrett, Justin S](#)
Subject: Re: Tiehm's herbivory report
Date: Friday, December 4, 2020 12:53:39 PM
Attachments: [Outlook-c03gmuru.png](#)

Thanks for the update. It is greatly appreciated.

From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Friday, December 4, 2020 12:50 PM
To: Raby, Jon K <jraby@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>; Wickham, Perry B <pwickham@blm.gov>; Crosby, Brandon J <bcrosby@blm.gov>; Todd, Marci L <m1todd@blm.gov>; Amme, Brian C <bamme@blm.gov>; Ralston, Jill A <jralston@blm.gov>; Bush, Christopher I <cbush@blm.gov>; infoweb@blm.gov <infoweb@blm.gov>
Subject: Tiehm's herbivory report

Good afternoon,

I wanted to bring this report and statement to your attention. These have been posted on our Reno Fish and Wildlife website [Home | Reno Fish & Wildlife Office \(fws.gov\)](#) but there may be some problems with the links so I wanted to make sure the information was appropriately disseminated.

Thank you!

Environmental DNA analysis supports conclusion that damage to rare Tiehm's buckwheat plants was caused by herbivory

December 4, 2020 - An environmental DNA (eDNA) analysis conducted on damaged Tiehm's buckwheat roots, nearby soils and rodent scat strongly links small mammal herbivory to the widespread damage and loss of Tiehm's buckwheat reported in September 2020. Tiehm's buckwheat is a rare plant found only near Rhyolite Ridge in Esmeralda County, Nevada. To determine the cause of the damage, the U.S. Fish and Wildlife Service and the Bureau of Land Management contracted a researcher affiliated with Southern Utah University to conduct an independent review and analyze materials collected from the area for eDNA. The analysis found squirrel, deer and a small trace of human DNA on root samples and soils near damaged or dead plants.

Buckwheat DNA was detected in the scat, and the genetic signatures were a strong match (96.9-99.8 percent) to ground squirrels. This coupled with known white-tailed antelope ground squirrel populations at Rhyolite Ridge, burrowing at damaged plants, and rodent bite marks on plant roots strongly supports that ground squirrels were responsible for the damage. Current drought conditions likely motivated the rodents to seek moisture by consuming the shallow taproots of mature buckwheat plants. This is the first time herbivory was documented on Tiehm's buckwheat and its significance depends not only on its frequency and intensity, but whether damaged plants can recover and survive.

Justin Barrett

Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

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From: [Bush, Christopher I](#)
To: [Barrett, Justin S](#); [Raby, Jon K](#); [Furtado, Douglas W](#); [Wickham, Perry B](#); [Crosby, Brandon J](#); [Todd, Marci L](#); [Amme, Brian C](#); [Harvey, Jess D](#)
Subject: Re: Tiehm's herbivory report
Date: Friday, December 4, 2020 12:55:30 PM
Attachments: [Outlook-c03gmuru.png](#)

Justin,

Thanks for sending this along to us. I also wanted to express my thanks for the exceptional coordination, collaboration, and leadership your communications team demonstrated as we worked through this process. Martha and Joanna's teams were great partners, as always.

Best,
Chris

Christopher Bush
Chief, Communications
Bureau of Land Management - Nevada
Office: 775-861-6629
Cell: 775-225-9532
cbush@blm.gov
www.blm.gov/nv

From: Barrett, Justin S <justin_barrett@fws.gov>
Sent: Friday, December 4, 2020 12:50 PM
To: Raby, Jon K <jraby@blm.gov>; Furtado, Douglas W <dfurtado@blm.gov>; Wickham, Perry B <pwickham@blm.gov>; Crosby, Brandon J <bcrosby@blm.gov>; Todd, Marci L <m1todd@blm.gov>; Amme, Brian C <bamme@blm.gov>; Ralston, Jill A <jralston@blm.gov>; Bush, Christopher I <cbush@blm.gov>; infoweb@blm.gov <infoweb@blm.gov>
Subject: Tiehm's herbivory report

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Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
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Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: [Young, Adele R](#)
To: [Jackson, Marc A](#); [Barrett, Justin S](#)
Subject: Tiehm"s eDNA Report
Date: Tuesday, December 1, 2020 5:10:58 PM

Hello Marc and Justin,

(b) (5)



Best,
Adele

Adele R. Young
U.S. Department of the Interior
Office of the Solicitor, Pacific Southwest Region
2800 Cottage Way, E-1712, Sacramento, CA 95825
Phone 916.978.4667
Fax 916.978.5694
adele.young@sol.doi.gov

From: [Barrett, Justin S](#)
To: [Sharkey, Anne-Marie](#)
Subject: Tiehms eDNA report
Date: Wednesday, December 2, 2020 2:18:53 PM
Attachments: [Grant FINAL FWS Tiehms eDNA report 20201201.pdf](#)
[Outlook-sfanobkz.png](#)

Hello Anne-Marie,

If you haven't already seen this, here we just received the final report for the eDNA on Tiehm's. I've attached it here.

Do you have a report from your investigation that you can share yet?

Our biologist would like cite your investigation in the Species Report if possible.

Thanks!

Justin

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U.S. Fish and Wildlife Service
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<https://www.fws.gov/reno/>



From: [Barrett, Justin S](#)
To: [Raby, Jon K](#); [Furtado, Douglas W](#); [Wickham, Perry B](#); [Crosby, Brandon J](#); [Todd, Marci L](#); [Amme, Brian C](#); [Ralston, Jill A](#); [Bush, Christopher I](#); infoweb@blm.gov
Subject: Tiehm's herbivory report
Date: Friday, December 4, 2020 12:50:48 PM
Attachments: [FINAL Tiehms eDNA report 20201201.pdf](#)
[Outlook-c03gmuru.png](#)

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U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: [Barrett, Justin S](#)
Subject: Tiehm's herbivory report
Date: Friday, December 4, 2020 12:57:47 PM
Attachments: [FINAL_Tiehms_eDNA_report_20201201.pdf](#)
[Outlook-l1f2mgoz.png](#)

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Justin Barrett
Assistant Field Supervisor
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Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: [Barrett, Justin S](#)
Bcc: esmboc@esmeraldacountynev.org; dstapleton@nvnao.org; [Colby Prout](#); clerktreasurer@esmeraldacountynev.org; pdonnelly@biologicaldiversity.org; center@biologicaldiversity.org; jmaschinski@saveplants.org; gradyb@ripon.edu; Shaaron@nevadawilderness.org; info@nevadalandscape.org; Tyre@nevadaming.org; president@nvnpa.org; brian.beffort@sierraclub.org; Nevada@tnc.org; emolvar@westernwatersheds.org; tjones@wildearthguardians.org; lmcdade@calbg.org; ileneanderson@biologicaldiversity.org; paul@westernwatersheds.org; lcunningham@westernwatersheds.org; nfraga@calbg.org; [Kris Kuyper](#); [Rebecca Sawyer](#); ichrist@forestry.nv.gov; rshane@forestry.nv.gov; [Janel](#); [James](#); Elizabeth.A.Leger@dnr.nv.gov; atiehm@unr.edu; ohvinfo@ohv.nv.gov; [Kacey KC](#); cdonohue@lands.nv.gov; [Kristin Szabo](#); bcrowell@dnr.nv.gov; thompsonj@unr.edu; [Jacqueline Grant](#); glovato@ndep.org; smontooth@nig.nv.gov; [Clifford Banuelos](#); [Barrett, Justin S](#)
Subject: Tiehm's herbivory report
Date: Friday, December 4, 2020 12:57:45 PM
Attachments: [FINAL Tiehms eDNA report 20201201.pdf](#)
[Outlook-1f2mqoz.png](#)

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Justin Barrett
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Reno Field Office
Phone: 775-861-6338

<https://www.fws.gov/reno/>



From: [Barrett, Justin S](#)
Bcc: [Serrell Smokey, Chairman](#); [Rodney Mike, Chairperson](#); natural.resources@duckwatertribe.org; [Ronald Snooks, Chairman](#); environment@yombatribe.org; george@timbisha.com; environmental@timbisha.com
Subject: Tiehm's herbivory report
Date: Friday, December 4, 2020 1:00:17 PM
Attachments: [FINAL Tiehms eDNA report 20201201.pdf](#)
[Outlook-l1f2mgoz.png](#)

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