Center for Biological Diversity · California Botanic Garden

September 15, 2020

Douglas Furtado, District Manager
Bureau of Land Management, Battle Mountain District
50 Bastian Road
Battle Mountain, NV 89820
dfurtado@blm.gov

Marc Jackson, Field Supervisor
US Fish and Wildlife Service, Reno Office
1340 Financial Blvd, Suite 234
Reno, NV 89502
marc_jackson@fws.gov

Kacey KC, State Firewarden/Forester
Nevada Division of Forestry
2478 Fairview Dr.
Carson City, NV 89701
kaceykc@forestry.nv.gov

Ioneer Corp, USA Office
9460 Double R Blvd, Suite 200
Reno, NV 89521
info@ioneer.com

Kris Kuyper, Biology Program Manager
EM Strategies
1650 Meadow Wood Lane
Reno, NV 89502
kris@emstrats.com

Re: *Tiehm's buckwheat large-scale destruction incident*

With great sadness we report that on September 13, 2020 a large-scale destruction/collection incident destroyed an estimated 40% of the global population of the imperiled Tiehm's buckwheat (*Eriogonum tiehmii* Reveal, Polygonaceae). This significant and possibly irreparable loss is likely a consequence of inaction to protect the species by the Bureau of Land Management, the U.S. Fish and Wildlife Service, the State of Nevada, and the Ioneer Corporation. We request that all parties to which this letter is addressed take immediate corrective,

protective, and restorative actions to ensure the long-term viability of Tiehm's buckwheat and to protect it from further loss.

On September 12, 2020 at approximately 4:00 p.m., Dr. Naomi Fraga of California Botanic Garden and Patrick Donnelly of the Center for Biological Diversity visited subpopulation 1 of Tiehm's buckwheat (*Eriogonum tiehmii*) at Rhyolite Ridge. We discovered that there was significant disturbance at subpopulation 1 adjacent to the road, and many plants were missing. It appeared to be a poaching incident.

We returned on September 13, 2020 to conduct a more thorough survey of the damage. It appears that **there has been a significant incident of collection and/or wanton destruction of Tiehm's buckwheat across the entirety of its range**. The buckwheats appear to have been dug up by small shovels or spades. There were three predominant ways the damage presented: the entire plant was dug up and all that was left was a hole in the ground (Figs. 6-7); a portion of a buckwheat mat was dug up or removed from the ground, leaving a badly damaged remaining plant/mat (Figs. 8-9); or holes were dug to extract plants and extant plants are remaining with taproots exposed and a large hole surrounding them (Fig. 10).We observed significant footprints and disturbance in all subpopulations, including what appeared to be newly created social trails, which we surmise were used to haul out buckwheats (Fig. 3). While there were remains of buckwheat plants around the site within the subpopulations, including whole plants and pieces of plants, the lack of a large amount of uprooted biomass makes very clear that the perpetrators took the majority of the uprooted plants offsite. Please see the end of this letter for photographs of the incident (Figs. 4-10).

We visited all six subpopulations as established by Morefield (1995) and found varying levels of destruction throughout the entirety of occupied habitat and across all subpopulations. As a whole the data presented in this letter are largely preliminary based on observations, though we did count specific holes in the ground at subpopulations 1 and 2. It is unclear how many plants are lost for each hole in the ground – at a minimum one, but it may be more. In subpopulations 3, 4, 5, and 6 we present here estimates of percentage of plants loss, since the holes became too numerous to count. This data may be better obtained during the vegetative growth period in the spring, when plants are green and photosynthetic and more apparent in the landscape. These are presented as provisional and observational data to understand the scope of the destruction.

Subpopulations 3, 4, and 5 were the most severely affected, experiencing severe loss and apparent near total extirpation. Subpopulation 6, far and away the largest of the subpopulations, experienced an estimated 35% loss of individuals, including much higher levels of loss in subpopulation 6b. Subpopulations 1 and 2 were also significantly affected, experiencing an estimated loss of 25%. Within subpopulations, some populations were targeted for more intensive removal/destruction creating areas of wholesale extirpation (Figs. 4-5).

In total, a preliminary field survey revealed an estimated loss of over 17,000 plants. The total global population per EM Strategies 2019 survey was 43,921. **Thus we estimate that approximately 40% of Tiehm's buckwheat's global population was lost to this wanton act of destruction.** Please see provisional field survey data in Table 1.

Subpopulation	Estimated number of plants per 2019 survey (Percent of population)	(Count of holes 2020)	(Visual assessment 2020)	(Count of plants destroyed based on visual assessment)
1	9,240 (21%)	1,500	25% extirpation	2,310
2	4,541 (10%)	650	25% extirpation	1,135
3	1,860 (4%)	N/A	90% extirpation	1,620
4	8,159 (19%)	N/A	80% extirpation	6,527
5	199 (1%)	49	100% extirpation	199
6 (a, b)	19,871 (45%)	N/A	35% extirpation	6,855
Total	43,921			**18,646**
Percent of total population	100%			**42.40%**

Table 1: data from preliminary field survey on September 13, 2020 of Tiehm's buckwheat destruction incident. Column 2 data per EM Strategies 2019 survey.

We are unclear on the timing of this incident. Our last visit was July 5, 2020, and we did not notice any of this destruction at that time.

We also want to note that for some number of months, Ioneer Corp. has had a "missing" poster for Tiehm's buckwheat posted in the general store in nearby Dyer, NV. The poster offers a $5,000 reward for confirming a new population of Tiehm's buckwheat. The poster can be seen below in Figure 1. The poster was also distributed as a two-page stapled document, which is scanned below as Figures 2. We are aware that the poster was up in the Dyer store at least as far back as June 3, 2020 when the picture in Figure 1 was taken. We have been told anecdotally that the poster was up as early as April of 2020 which is supported by a posting on Ioneer's website.[1] The handout scanned below in Figure 2 was obtained at the general store on July 5, 2020.

[1] https://rhyolite-ridge.ioneer.com/ioneer-is-offering-a-5000-reward-for-the-discovery-of-tiehms-buckwheat/

Figure 1: "missing" poster as posted in the Dyer general store on June 3, 2020.

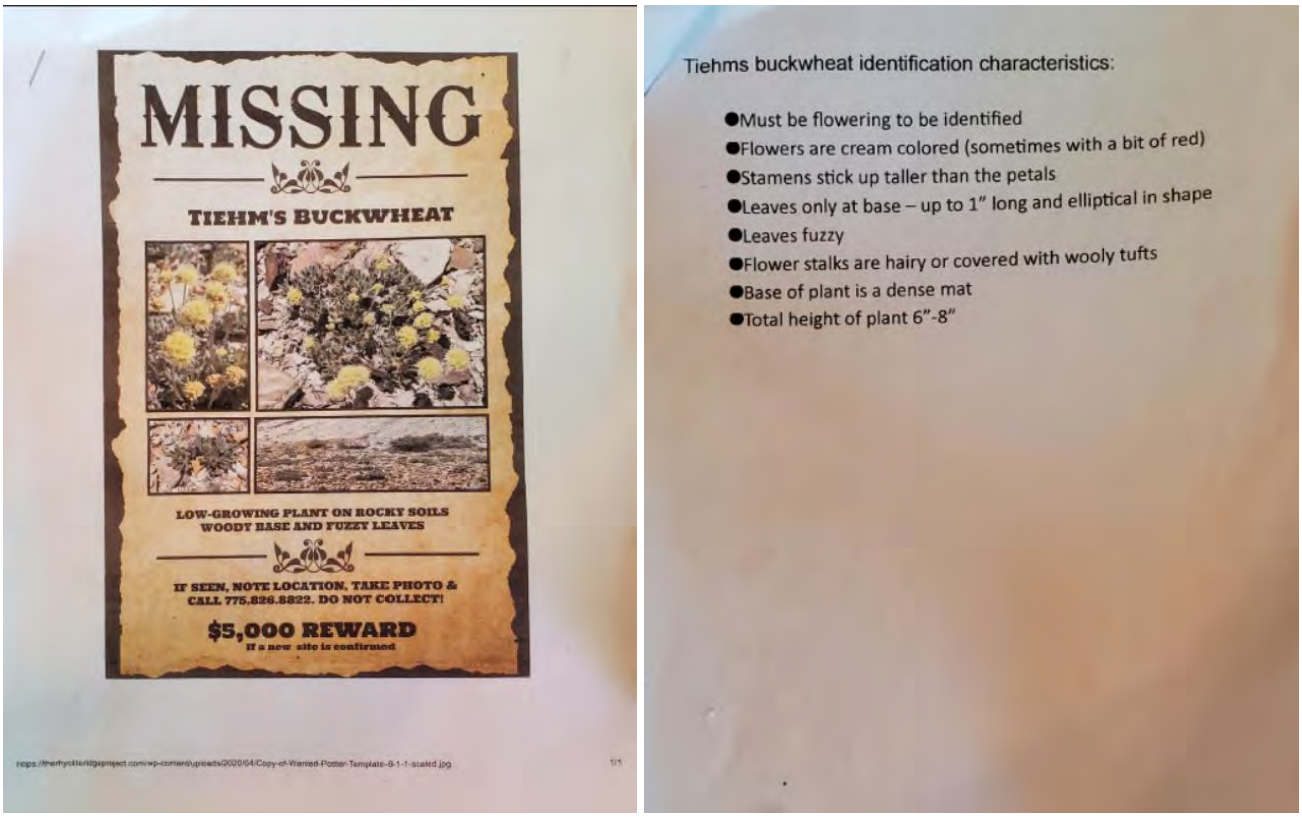


Figure 2: the Ioneer "missing" handout, which is identical to the poster in the store, obtained July 5, 2020.

Although it would be fruitless to speculate on the motives of the perpetrators of this incident, we will make a few observations. The plants were largely broken off from their taproots, and thus it was primarily the above-ground vegetative material that was taken. Such parts of a plant are highly unlikely to be viable in a transplanting situation. They are effectively dead. However, some great care was taken to haul out the dead pieces of buckwheat once they were unearthed, as was evidenced by recently trampled “social trails,” which had been barely discernable in past visits to the site. It seems unusual to go to such effort to remove the plants when they would be so certain not to survive.

The emerging social trail pictured below in Figure 3 was on the east side of subpopulation 2. This area of subpopulation 2 experienced almost 100% extirpation. This trail was not observed in previous visits to be of the same level of use and definition. One might surmise this trail was further developed by repeated trips to haul out the buckwheat plants. We saw similar trails in all populations.

Figure 3: emerging social trail within subpopulation 2.

Urgent Recommendations:

Tiehm's buckwheat faces a dire situation due to this new and active threat. Losing 40% of the global population in a single incident is catastrophic. Without immediate corrective, protective, and restorative action, we fear that other, similar incidents could occur and further jeopardize the long-term viability of the species, ultimately driving the species to extinction. But if your agencies take appropriate measures to protect the plant and restore the damage done to individual plants and habitat by this latest incident, we believe Tiehm's buckwheat can recover from this catastrophic event. Our recommendations are as follows:

Bureau of Land Management:

- Flag visible holes to enable assessment next spring during vegetative growth period;
- Backfill holes to prevent erosion, including focused effort on potentially viable plants that have had their roots exposed and are surrounded by holes;
- Repair damage to plants that is reparable and provide plant care to plants, including potentially supplemental water and/or other aids;
- Fence the entire habitat of Tiehm's buckwheat with secure fencing;
- Install security/game cameras;
- Install proper signage to inform the public of the sensitive resources present;
- Commence an investigation into this crime;
- Prosecute any violations of applicable federal law.

US Fish and Wildlife Service:

- Conduct a comprehensive re-survey of the population to confirm extent of damage;
- Immediately issue a 12-month finding to list Tiehm's buckwheat as endangered under the Endangered Species Act;
- Designate critical habitat for the entirety of the buckwheat's occupied range;
- Develop a recovery plan to ensure Tiehm's buckwheat does not go extinct.

Nevada Division of Forestry:

- Immediately adopt a rule to protect Tiehm's buckwheat under NRS 527.
- Create a plan for seed collection in 2021 and propagation.

Ioneer Corp. & EM Strategies:

- Immediately remove "missing" posters from Dyer store;
- Immediately cease offering a reward for new discoveries of Tiehm's buckwheat;
- Post a 24-hour security guard on-site until more appropriate security measures can be implemented by BLM.
- Cease any further disturbance of Tiehm's buckwheat individuals or native habitat for mining mitigation research until further information about the status and viability of the species in the aftermath of this destruction can be determined.

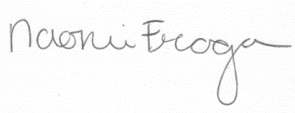
All Parties:

- Only a comprehensive seed banking, propagation, and outplanting effort can restore Tiehm's buckwheat to its former state in its native habitat. Conservation efforts must prioritize restoring Tiehm's buckwheat within formerly occupied habitat, not on mining mitigation.
- Permitting for mining activities within the native range of Tiehm's buckwheat should cease until the population can be stabilized.

The agencies and other parties addressed by this letter can take protective, corrective, and restorative actions that are critical for the species' continued persistence. This species has faced threats from mining for decades, but USFWS and NDF have failed to take action to provide adequate protection for this species, despite repeated warnings of its precarity and limited range; by BLM's lack of management for the buckwheat and its habitat; and by Ioneer's disregard for the need to protect the species in its native environment. Considering the catastrophic damage that the species has already experienced, only direct and immediate action from all interested parties will restore Tiehm's buckwheat and prevent further decline and ultimate extinction.

We await your prompt action,

Patrick Donnelly
Nevada State Director
Center for Biological Diversity
pdonnelly@biologicaldiversity.org



Naomi Fraga, Ph.D.
Director of Conservation
California Botanic Garden
nfraga@calbg.org

CC: Bradley Crowell, Catherine Erskine, Nevada Department of Conservation and Natural Resources; Perry Wickham, BLM Tonopah; Justin Barrett, USFWS Reno; John Christopherson, Nevada Division of Forestry; Kirstin Szabo, James Morefield, Nevada Division of Natural Heritage; Zach Zaragoza, Kyle Chapman, office of Senator Cortez Masto; Kelly Riddle, office of Senator Jacky Rosen; Kevin Herzik, office of Representative Steven Horsford; Senator Melanie Scheible, Chair, Senate Natural Resources Committee.

Figure 4: destruction at a single site near the access road at subpopulation 1.

Figure 5: destruction in subpopulation 6b.

Figure 6: Dug up plants with detritus, subpopulation 2.

Figure 7: completely dug up plants, subpopulation 1.

Figure 8: Destroyed buckwheat with loose pieces, exposed taproot, and small remaining rooted plants in subpopulation 1.

Figure 9: Exposed taproot, subpopulation 1

Figure 10: extant plants are remaining with taproots exposed and a large hole surrounding them.