

Data Submitted (UTC 11): 10/30/2023 6:00:00 AM

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Comments: October 30, 2023

USDA Forest Service

Rocky Mountain Region

Attn: Reviewing Officer

C/O Director of Strategic Planning

2nd floor, 1617 Cole Blvd. Building 17

Lakewood, CO 80401

Subject: Grand Mesa, Uncompahgre, Gunnison National Forests Revised Land Management Plan

Responsible Official: Chad Stewart, GMUG Forest Supervisor

Submitted via: https://www.fs.usda.gov/goto/gmug/forestplan_objections

Dear Reviewing Officer:

Defenders of Wildlife files this objection to the Final Land and Management Plan for the Grand Mesa, Uncompahgre, Gunnison (GMUG) National Forests under the process identified in 36 C.F.R. [sect] 219 Subpart B. Notice of availability of the Draft Record of Decision (Draft ROD), Final Environmental Impact Statement (FEIS), and the Revised Land Management Plan (Revised Plan) was published in the Grand Junction Daily Sentinel, the GMUG's newspaper of record, on August 30, 2023, making this objection timely. Our objection focuses on plan direction relevant to the Uncompahgre fritillary butterfly (endangered).

Sincerely,

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II. Uncompahgre Fritillary Butterfly (*Clossiana improba acrocne*)

We raised issues related to the Uncompahgre fritillary butterfly (UFB) in our comments on the draft plan and DEIS. HCCA et al. 2021 at 124-147.

The USFWS listed the Uncompahgre fritillary butterfly (UFB) as endangered in 1991. 56 Fed. Reg. 28712 (June 24, 1991). At that time, the Service believed collection was the top threat to the species; others included trampling of the butterflies and their snow willow habitat by humans and livestock. The 2009 5-year review for UFB set the degree of threat to moderate and recovery potential at high, describing climate change as a "potential" threat and deemphasizing livestock and human trampling as threats. USFWS 2009. The 2018 5-year review described climate changes as the biggest threat to the UFB and listed its recovery potential as low and, at that time, did not consider human recreation and livestock use as population-level threats. USFWS 2018. The 2023 5-year review, new since the GMUG's draft plan was issued for comments, similarly placed recovery potential for the species as low due to climate change, but also stated that human recreation, including hikers with dogs, on trails near and adjacent to colonized areas has increased and sheep have been degrading habitat by eating and bedding in colonized areas. USFWS 2023.

New information, a paper by Williams and Alexander (2023), indicated there could be management responses to climate change despite its increasing negative impacts on the UFB and habitat. Dr. Keven Alexander is a national expert on the species and has monitored UFB colonies for 20 years. The paper reported that precipitation and temperature changes alter the timing of nectar sources and facilitate the encroachment of lower elevation plants into important alpine plants for the species, including snow willow. The authors stated, "colonies might persist through low-level migration and "temporal leakage" at these study sites, suggesting this data could also be used to manage suitable habitat for metapopulations of *B. i. acrocne*." Williams and Alexander 2023 (unpaginated), citing Monroe et al. 2016. In another paper published between the draft plan comment closure and issuance of the final plan, Ripple et al. 2022 (supplemental materials) recommended a protective reserve for the UFB. Williams and Alexander (2023) concluded with the following recommendations:

With formulas of predicted changes in the phenological timing of alpine communities and micro- or macroclimate data, we can further model climate related extirpation or extinction risk of *B. i. acrocne* to adequately manage for in the short term and prioritize for the long-term conservation of alpine ecosystems. Protecting current habitat from increasing bare ground due to human recreation or livestock grazing are critical management actions to

preventing immediate declines in *B. i. acrocne* abundance.

The paper's findings emphasize the need for strong habitat protections that prohibit humans, dogs, and livestock disturbance in occupied and suitable unoccupied UFB habitat. Unfortunately, the revised plan does not provide sufficient protections from these threats.

A. The revised plan does not provide the ecological conditions necessary to contribute to the recovery of the Uncompahgre fritillary butterfly in violation of 36 CFR 219.9(b)(1) and also fails to comply with 219.9(a)(2)(ii).

Under 36 CFR 219.9(b)(1) the Forest Service is required to "contribute to the recovery of federally listed and endangered species. . ." The Forest Service is also required to ensure that the plan contains components that would maintain or restore rare aquatic and terrestrial plant and animal communities. 36 CFR 219.9(a)(2)(ii). The plan components do not, however, meet these mandates because they do not sufficiently protect UFB and its habitat from livestock and recreation impacts. These impacts are becoming greater threats to the species and are readily manageable, allowing for their impacts to be avoided and prevent them from becoming even greater threats to the species over the course of the Plan's applicability.

We greatly appreciate that the Forest Service changed guideline FW-GDL-SPEC-27 to a standard, FW- STND - SPEC-27, in the revised plan to better protect the Uncompahgre fritillary butterfly (UFB), a rare species, from recreation impacts. However, FW- STND -SPEC-27 does not meet the requirements set forth by 36 CFR 219.7(e)(1)(iii), which requires standards to be "mandatory constraints," containing the modal verbs "shall" or "must" confirming an obligation. The last sentence of FW- STND -SPEC-27, "[l]ivestock trailing through occupied UFB habitat should conform to the 2008 on-file biological assessment with the U.S. Fish and Wildlife Service, or as superseded in subsequent consultation" (emphasis added) does not comply because the "should" enables departure from the standard. FSH 1909.12 Zero Code at 05.1 - Exhibit 01 ("Standards . . . 2. Are stated in a precise manner, and with mandatory or prohibitive wording, such as "must," "shall," "must not," "may not," "shall not," or XX is not allowed to be authorized."). For reasons stated herein, however, and even if the language is made mandatory, the exception to allow livestock trailing through UFB habitat needs to be stricken.

Domestic sheep movement through UFB snow willow habitat must not be permitted. This is a threat to the species that the Forest Service can prevent. Given the impacts of climate change and the best available science discussed herein, the agency should take all actions possible to protect the UFB and its habitat.

The FEIS, Vol. 1 at 288 states,

The Forest does not permit livestock grazing in occupied Uncompahgre fritillary butterfly habitat. However, sheep trailing overlaps one known colony area. Sheep trailing typically occurs after the Uncompahgre fritillary butterfly

flight season, and the sheep trail through the colony over a period of a few days. As grazing leases cycle through permit renewal, revised management direction in all action alternatives would be taken into consideration, addressing any negative impacts associated with grazing. FW-STND-SPEC-27 would prohibit direct impact to this habitat per its requirement to avoid habitat-disturbing activities in occupied Uncompahgre fritillary butterfly snow willow habitat, and directing livestock trailing through occupied habitat to continue to conform to the on-file biological assessment and concurrence with the U.S. Fish and Wildlife Service.

Minimal impacts from the livestock grazing program to the Uncompahgre fritillary butterfly may, however, occur. (emphasis added)

Enabling sheep trailing after flight season offers no protection at all. UFBs would also be at risk to this threat regardless of the period in their life cycle. Domestic sheep can trample, bed on, and eat butterfly host plants at the egg, larval, and chrysalis stages. Additionally, UFBs are sedentary in nature, have weak flying ability, and tend to fly low to the ground (Uncompahgre Butterfly Recovery Team 1994), making flyers susceptible to sheep impacts. Climate change may be shifting the timing when nectaring plants flower (See Williams and Alexander 2023) and could shift the timing of the UFB life cycle.

The USFWS's 2023 5-year review for the species stated that the threat of domestic sheep in at least one colony-25% of the GMUG's population-is increasing, stating,

Domestic sheep trailing and especially bedding on UFB habitat could affect the butterfly by degrading its habitat. Sheep were observed on UP in past years since 1990 but appeared to have just trailed through there within a day or two. Nectar sources were eaten by past sheep grazing on UP, which could impact energy levels for UFB flying and mate seeking (Donohue and Alexander 2023). Immediate or lingering population impacts were not detected in subsequent and recent years, but it is hypothesized that annual sheep grazing at UP prior to 1980 could have influenced the small numbers or absence of the UFB there in the 1980s and could have influenced genetics at UP [Uncompahgre Peak] (Monroe et al. 2016). After a few years of no sheep grazing, a large, but currently unknown, number of sheep were also grazed on UP in 2023 (O. Wilmot, personal communication, July 25, 2023). They knocked over population monitoring transect stakes and flags, but the habitat and population abundance impact to the UP sub-colonies is currently unknown. A number of sheep were observed laying down on the colony, so it appears they were not being trailed through rapidly. USFWS 2023 at 4

The Forest Service cannot continue to allow livestock in the habitat of this critically imperiled small-range, very small-population species with a very large degree of instability among colonies. See USFWS 2023 at 2-4.

The new science discussed at the beginning of this section emphasizes the need for the Forest Service to be proactive in managing recreational impacts on the species. The Plan is also clear that the Forest Service is anticipating recreation to increase over the course of the next decade and continue to place additional stresses on habitat and ecological integrity. An additional standard is needed to address this reasonably foreseeable

increasing threat to UFB and its habitat.

In our comments on the draft plan and DEIS, we recommended changing guideline FW-GDL-SPEC-19 to a standard, which would provide greater certainty that the UFB would be protected from disturbance to its habitat. The Forest Service chose not to develop the guideline into a standard and changed the language to make it even weaker. Below are both the draft plan and revised plan language.

Draft Plan version:

FW-GDL-SPEC-19: To maintain viable populations of at-risk species, particularly in alpine habitats, the Forest Service should limit use (motorized or non-motorized, foot, or pack stock traffic) to designated routes (seasonally or in limited areas, not Forestwide); implement seasonal closures on recreational use over limited areas; limit activities that require special use permits; and/or implement other such temporary or limited-area measures as needed to reduce impacts of recreation and forest use. (emphasis added)

Final Revised Plan version:

FW-GDL-SPEC-19: To maintain viable populations of species of conservation concern and contribute to recovery of federally listed species that are negatively affected by recreation and forest use, the Forest Service should manage human disturbance in pertinent habitats. Tools for managing use include restricting use (motorized or non-motorized, including foot or pack stock traffic) to designated routes where appropriate; implementing seasonal recreation closures; and/or stipulating reauthorizations and new authorizations of pertinent special use permits. (emphasis added)

The word "limit" in the draft plan guideline provides at least some management direction; the word "manage" in the final revised plan is vague and ambiguous. Restricting use might not mean limiting it under the final Plan's guideline, as restriction is only a "tool." In any case, it's unclear how this guideline would be followed by line officers and other Forest Service staff. The word "manage" in the guideline provides no constraint on decisionmaking as required by 36 CFR 219.7(e)(1)(iv).

Accordingly, the Plan's approach for this species is not only contrary to the Planning Rule, but also fails to comply with the ESA's duty to conserve and recover listed species (16 U.S.C. [sect] 1536(a)(1)).

B. Guideline FW-GDL-SPEC-19 does not provide clear, unambiguous direction and, therefore, violates of 36 CFR 219.7(e)(1), FSH 1909.12.22.1.2.b, and FSH 1909.12.22.1.2.d.

The change in language to guideline FW-GDL-SPEC-19 from "limit" to "manage," as described above, decreased

management clarity and increased ambiguity. It's not certain how Forest Service staff would apply or conform with the guideline because it lacks clear direction. We recommend this guideline become a re-worded standard below.

C. With regard to the Uncompahgre fritillary butterfly, the revised plan does not comply with 36 CFR 219.8(a)(1) and 219.9(a)(1).

As we've demonstrated above, the GMUG does not have sufficient standards to provide for the ecological conditions to contribute to the recovery of the UFB and is risking the species' extinction. As such, the Forest Service is also violating 36 CFR 219.8(a)(1) and 219.9(a)(1) by failing to assure the provision of ecological integrity, which is defined at 36 CFR 219.19 as,

The quality or condition of an ecosystem when its dominant ecological characteristics (for example, composition, structure, function, connectivity, and species composition and diversity) occur within the natural range of variation and can withstand and recover from most perturbations imposed by natural environmental dynamics or human influence.

The UFB must be considered a compositional and functional characteristic of the GMUG's alpine ecosystem. Not providing sufficient plan components in the preferred alternative to promote their recovery violates NFMA's diversity mandate, 36 CFR 219.8(a)(1) & 219.9(a)(1), as well as the ESA. They are part of what makes up the biodiversity of the alpine ecosystem in the GMUG, and their near extinction is a symbol of the global and national biodiversity crisis and the deterioration of the integrity of grassland ecosystems.

The Planning Directives include "species richness," "species diversity," and the "presence and abundance of species at risk" as compositional characteristics of ecosystems. FSH 1909.12.10.12.13 - Exhibit 01. UFBs also serve a functional role in the ecosystem as pollinators. FSH 1909.12.10.12.13 - Exhibit 01. Their presence and persistence within snow willow ecosystem patches is an indicator of ecological integrity. Without the UFB, the alpine willow system would be missing a key member of the ecological community.

D. The Revised Plan likely does not comply with the National Environmental Policy Act.

Despite our comments at the draft stage that pointed out the Forest Service's failure to consider a reasonable range of alternatives and conduct proper direct, indirect, and cumulative impacts analysis, this analysis remains lacking. Pertaining to alternatives, the Final EIS states, "All action alternatives include the same Forestwide direction for the Uncompahgre fritillary butterfly." FEIS, Vol. 1 at 286. Accordingly, the Forest Service acknowledges there is no range of alternatives for this species. It also constrains the decisionmaking process by foreclosing alternatives that would better protect the species and its habitat through stronger standards, such

prohibiting any livestock grazing and/or trailing within and near the species' habitat. A reasonable alternatives analysis that includes a standard that excludes livestock grazing and human intrusion into UFB habitat was requested at the draft stage, yet the Forest Service has not responded to that request, nor has it undertaken that necessary analysis.

Additionally, the Forest Service has still not provided direct, indirect, and cumulative impacts analysis for this species for standard FW-DC-SPEC-01 (identified in the final plan as applicable to this species), FW-GDL-SPEC-19, or FW-DC-SPEC-27. While FW-DC-SPEC-01 and FW-GDL-SPEC-19 are stated as being beneficial for the species, neither require avoidance or mitigation of impacts, and instead opt for minimization to some unknown degree or an undefined and undetermined level of management. FW-DEC-SPEC-01 ("Disturbance of species by management activities and recreation is managed to minimize impacts during critical life history periods (e.g., breeding, feeding, rearing young, and migrating)"; FW-GDL-SPEC-19 (" . . . the Forest Service should manage human disturbance in pertinent habitats. Tools for managing use include restricting use (motorized or non-motorized, including foot or pack stock traffic) to designated routes where appropriate; implementing seasonal recreation closures; and/or stipulating reauthorizations and new authorizations of pertinent special use permits."). Without direct, indirect, and cumulative impacts analysis, the Forest Service has not complied with NEPA nor has it complied with its requirements under 36 CFR 219.8(a)(1), 219.9(a),(b), and 219.9(e). This outstanding impact analysis is critical to inform and strengthen plan components so they meet the agency's obligations under 36 CFR 219.9(a)(1), (b)(1), (e), NEPA, and the ESA.

The new information that sheep grazed within this species' habitat in the UP population in 2023 underscores the inadequacy of the Forest Service's plan components. Increased threats (recreation, climate change), current climate science and drastic population drop offs, as discussed in the most recent 5-year reviews and as depicted in the graph below, require the forest plan to do much more to protect this species. It also does not support the Forest Service's desired "flexibility." See FEIS, Vol. 3 at 309. It is also clear that flexibility under the existing plan has been insufficient for the survival and recovery of the species. There must be fixed standards that protect the species from any additive impacts from sheep trailing and grazing if the Forest Service is going to meet its duties of conservation and recovery (as the ESA and 36 CFR 219.9(b)(1) require). USFWS 2023 at 3. While we are hopeful the high snow year of 2022-2023 may lead to rise in populations, the continued downward trend cannot be ignored.

Suggestions for Improvement

* Recommendation: Change the standard FW- STND -SPEC-27 to: To assist in species recovery and to avoid species and habitat impacts, new or realigned recreation trails or other habitat-disturbing activities must avoid Uncompahgre fritillary butterfly snow willow habitat and silverspot bog violet habitat. (Exception: management actions supported by the U.S. Fish and Wildlife Service as beneficial to habitat.) Livestock shall not be permitted in trailing through occupied Uncompahgre fritillary butterfly habitat. Should conform to the 2008 on-file biological assessment with the U.S. Fish and Wildlife Service, or as superseded in subsequent consultation.

* Recommendation: Adjust any grazing allotment boundaries to make them far from UFB habitat.

* Recommendation: Guideline FW-GDL-SPEC-19 must be made into a standard and replace "should" with "shall" to provide clear, unambiguous direction to prevent humans, their pets, and their livestock from entering UFB snow willow habitat with a specific set of management actions.

* Recommendation: Within two years, designate a UFB reserve special area to protect occupied and unoccupied suitable habitat, as suggested by Ripple et al. (2022). Wilderness and recommended wilderness designations alone do not provide sufficient protections for habitat given that they allow recreation and livestock.

Literature Cited in this Section

Monroe, E. M., Alexander, K. D., & Britten, H. B. 2016. Still here after all these years: the persistence of the Uncompahgre fritillary butterfly. *Journal of Insect Conservation*, 20, 305-313.

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