Carapace NEWSLETTER FOR THE Upper Gila Watershed Alliance



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A growing herd of unowned, unpermitted, and unmanaged feral cattle crossing the mainstem, wilderness reach of the Gila River near the Sapillo Creek confluence. **Your comments on the Gila National Forest's Draft Forest Plan Revision are needed now to end this absurdity and to protect one of our most important climatic refugia**. Photo by Mike Fugagli.

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Extra! Extra! Read All About It!

The Gila National Forest's draft plan comment period provides a unique opportunity to influence the management of the Gila. Everyone is invited to provide input to the Gila National Forest before the comment period ends on April 16. This is important because forest plans guide the Forest Service's policies, projects, decisions, and actions for years to come.

Because this is a unique moment in time – the climate and mass extinction crises coinciding with the forest plan revision process – we've devoted this entire newsletter to the Gila National Forest's draft forest plan. In this issue, you can read about the good aspects of the draft plan as well as its shortcomings. We also provide information on how to submit comments.

The Gila National Forest, at 3.3 million acres, is our beloved backyard. Many of us treasure the forest as a time-honored wellspring of solace and renewal. This is especially true in these very challenging times of the COVID-19 pandemic. Unlike in other emergencies, when we come together for comfort and to support one another, the COVID-19 emergency requires socially distancing. Fortunately, reading about and commenting on the draft plan can be accomplished from the safety of our own homes.

The Gila National Forest's "current" plan is from 1986, and many conditions have changed since then. In mid-January, the Gila released its draft forest plan, kicking off a 90-day public comment period that ends April 16. Accompanying the draft plan is a draft Environmental Impact Statement. Local, regional, and national conservation groups are dividing the immense task of evaluating more than 1000 pages and writing comments in response.

To facilitate comment writing, we have reviewed the draft plan and draft EIS and pinpointed its deficiencies. More importantly, we have identified what is missing from the draft plan: the twin crises of the climate emergency and mass species extinction, and some of the management actions the Forest Service could implement to decrease the expected impacts of climate change.

We have an important request for you while you're sheltering in place. Please read this special issue and submit comments to the Gila National Forest about their draft plan. We thank you, and the forest thanks you.

Be well, friends.

-Donna Stevens



Evening primrose, Cliff-Gila Valley. Photo: Mike Fugagli

Gila National Forest Draft Plan

by Mike Fugagli

Part One – The Problem

In these strange and troubling times when the COVID-19 pandemic has us all overwhelmed and worried about family and friends, it is easy to put issues like the Gila National Forest's (GNF) revised forest planning process on the back burner. In fact, it has been particularly difficult to even settle down enough to write the content for this special forest planning issue of Carapace under the cloud of this immediate health crisis. Nevertheless, with less than a month remaining for the public to formally comment on the GNF's Draft Forest Plan Revision (Draft Plan), we are sending out this special edition of Carapace with the fervent hope that you will find the time and energy sometime in the next couple of weeks, despite our ongoing health crisis, to provide comments on the Draft Plan and its associated Draft Environmental Impact Statement (DEIS), particularly in regard to what seems to be the documents' greatest shortcoming: the failure of the forest planning team to

adequately incorporate our global-scale climate and ecological emergencies into the forest planning process.

But commenting on the Draft Plan and its associated DEIS from the perspective of our global climate and ecological emergencies is a little like grabbing onto a ghost; there's nothing really to hold onto because the primary sin of the Draft Plan is the sin of omission. *Missing almost entirely in the Draft Plan and associated DEIS is an overall theme, structure, and content that is consistent with an bonest and candid recognition of this unique, dangerous, and inbarmonious moment in time.*

The hard truth that we are facing a global climate and ecological emergency, which translates regionally into a Gila National Forest emergency, is a monumental thing to process – individually, collectively, but especially, in a governmental planning

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Mission Statement

The Upper Gila Watershed Alliance is a nonprofit watershed protection and conservation organization working to promote the long-term health of the Upper Gila Watershed and its communities of life. Through advocacy, education, research and restoration projects, we are striving to build communities of stewards in more locally based economies.

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document. Regardless, the global scientific community has announced very clearly that the best scientific evidence supports the view that humanity has recently entered a new geological epoch - the Anthropocene - becoming the dominant driver of planetary change. The cumulative impact of human activity is rapidly accelerating the Earth into our planet's sixth mass extinction event, and the dual crises of global heating and biodiversity loss are both approaching critical thresholds of potentially catastrophic and irreversible change. And because the science behind the uniqueness of this moment is so well established and because it is already so well summarized in a multitude of scientists' warnings and global reports, the recognition of this moment as a unique and urgent global-scale ecological emergency is increasingly uncontested by defendants and recognized by the courts.

How, then, should a regional forest planner or land manager respond to this mind-bending global-scale news? How should the National Environmental Policy Act (NEPA, 1970) be interpreted and applied in a crisis situation, a global ecological emergency? What does it mean for regional forest planning when the forests themselves are predicted with high probability to die in massive waves of mortality from heat spikes, fire, and drought over the coming century? What does a mandate for sustainability mean in a period of rapidly accelerating ecological change? What does NEPA's goal of productive harmony between man and nature mean in this moment of extreme disharmony?

Tough questions, I know. But answering those questions is critical to the future of the Gila.

Perhaps it's best to start by looking at the goals of NEPA and the 2012 Planning Rule which contain the mandates and directives that govern the Forest Planning process. Most importantly, the mandates and directives of NEPA and the 2012 Planning Rule promote management goals that maintain or advance environmental conditions that are consistent with the historic, stable-state ecological baseline, what the Forest Service refers to as the reference condition. Goals such as ecological integrity, persistence, restoration, recovery, and sustainability are all predicated on the idea of maintaining or restoring historic baseline conditions. **The trouble** is, as we move well beyond the historic range of environmental variability for the Gila's ecological systems, reference conditions are rapidly becoming ecological impossibilities, making it much harder for land managers and the public to interpret an agency's legal obligations. The danger, of course, is the threat of "shifting baseline syndrome." With the possibility of ecological sustainability now precluded by unprecedented ecological change, land managers may simply feel empowered to redefine for themselves what sustainability means. Our job is to convince them (or the courts) that agency mandates for ecological integrity and sustainability, in a time of ecological crisis and unprecedented ecological change, have to be interpreted as a mandate to implement an emergency response plan in an effort to maximize ecological resistance and resilience within an agency's inherent capability. As long as the Forest Plan is still governed by mandates to promote and maintain historic baseline conditions, the fact that the forest is now threatened with near-term irreversible change only increases the responsibility of land managers. They are not free to simply redefine what sustainability means.

The increased burden of responsibility that the forest planning team now bears to maximize the ecological resilience and resistance of the Gila is, in large part, an unfortunate twist of fate. The expected life of our new Forest Plan - the next fifteen years - just happens to be perfectly concurrent with the "window of opportunity" that the Best Available Science (BAS) gives us before human agency is completely lost as a contributing factor in the trajectory of our environmental future. Most compellingly, the ecological crisis we face is a timed test, with the BAS telling us that, in the next decade, we will collectively choose, as a global community, whether or not the existential threat of global ecological collapse is a problem we might overcome with good management decisions based on restoration. resilience, and recovery, or a predicament forced on us permanently by the complete loss of human agency. The decade just in front of us, then, likely stands as the most consequential in human history, with many interacting earthsystem tippingpoints fast approaching dangerous thresholds that, if crossed, will likely lead to uncontrollable, cascading, and *irreversible ecological breakdown:* an outcome that stands clearly as the antithesis of the GNF's sustainability mandates and the harmony between man and nature envisioned by NEPA.

Again, new geological epoch, our the Anthropocene, is defined by the fact that our species has recently become the dominant driver of planetary change. In regard to our climate emergency, fossil fuel-based energy systems, and their derivatives, have already burned and emitted enough greenhouse gases (GHGs) into our atmosphere to raise the global average temperature approximately 1.1 degrees Celsius. Today, we find ourselves at the point of adding 500,000 Hiroshima-style atomic bombs' worth of additional heat into the world's oceans every twentyfour hours. Approximately 93% of all global heating so far has been stored in the world's oceans, buffering atmospheric warming for a time, but reminding us that the world's oceans are a planetary heat sink; the warmer they become the more permanent, relative to a human time scale, planetary changes will be. Already, scientists are measuring significant changes in natural phenomena like the now warmer, wetter, and wider atmospheric rivers that increasingly threaten the Gila National Forest, and the rest of the American Southwest, with enormous amounts of erosive "rain bomb" energy derived from a rapidly warming Pacific Ocean. Elsewhere on the planet, global heating thresholds are already being crossed for the persistence of sea and glacial ice, coral reefs, tropical forests, and other planetary systems integral to a safe and stable biosphere.

The BAS also tells us that many of the Earth's most diverse ecosystems and stability-generating biomes teeter on the verge of collapse by a variety of anthropogenic stressors that are unrelated to the issue of climate change or global heating. The global biodiversity crisis, though increasingly exacerbated by climate change, remains a stand-alone crisis, with over one million species now threatened with extinction by mid-century, primarily from unsustainable land, fresh water, and ocean uses that remain inconsistent with NEPA's vision of harmony. To address the global biodiversity crisis, scientists are calling for the massive rewilding of both land and ocean-based ecosystems. The BAS tells us that, at a minimum, approximately 30% of the earth's land and ocean areas will need to



Great Blue Heron roosting, Photo: Carol Ann Fugagli

be protected by 2030, with at least 50% protected by 2050, to forestall planetary-scale ecological collapse and bring approximately 80-85% of global biodiversity with us through this century's extinction bottleneck. *Remarkably, although the Draft Plan does very briefly acknowledge the reality of our climate crisis, the global biodiversity crisis is not even addressed.*

Even the climate change vulnerability assessment used by the GNF's planning team predicts unprecedented ecological change by the end of this century with well over 90% of the land area of Arizona and New Mexico predicted to be at moderate to very high risk of ecological type conversion because of expected environmental conditions well beyond historic climate envelopes. Most affected will be needleleaf evergreen ecosystems. Our coniferous forests and woodlands will be increasingly threatened in the years ahead by heat stress, and the derivative stressors of increasing temperatures: hydraulic failure, drought, erosion, and desertification, as well as increasing levels of catastrophic fire, pests, and disease.

The BAS indicates that even a two-degree Celsius

average temperature rise is deadly for forests in the American Southwest. Our current climate trajectory puts us well over a four degrees Celsius temperature rise by the end of current century. All of our native conifers - including spruce and fir forests, all the way down through the mixed pine, ponderosa pine, piñon, and surprisingly, even juniper - are predicted to suffer mass mortality events at an increasing rate in coming decades. End of century estimates predict an almost complete loss of coniferous forest, except, perhaps, in refugial areas where special soils, hydrology, and/ or topographic factors may interact to create cooler and moister micro-climatic conditions. In regard to drought, of particular note is the recent science that shows that the length of a drought needed to precipitate a mortality event is directly correlated with average temperature rise. As average temperature increases, shorter droughts become deadlier due to increased soil moisture loss. Today, for example, it might take eleven months of persistent drought to precipitate a mortality event in a piñon-juniper woodland. By midcentury, six months of persistent drought may have the same effect. Unfortunately, shorter droughts, like smaller floods, are much more common statistically.

The Draft Plan

Despite the urgency of this moment, the Draft Forest Plan and associated EIS fall far short of an "Emergency Response Plan." Consider for example the vision statement of the Draft Plan:

"Connect individuals and communities to a bealthy functioning landscape by recognizing and providing for traditional uses and recreational experiences that stakeholders desire, and that the Gila National Forest is uniquely positioned to provide."

In light of the increasingly high probability of global and regional ecological breakdown in the foreseeable future, this vision statement is almost totally tone-deaf to reality. A more meaningful and reality-based vision for the GNF would look something like this:

In response to unprecedented global/regional ecological change, and the imminent threat of irreversible global/regional ecological collapse due to our worldwide climate and ecological emergencies, maximize the ecological resilience and

resistance of landscapes within the Gila National Forest in order to fulfill the responsibilities of this generation as trustees of the environment for succeeding generations.

Unfortunately, none of the Draft Plan's five alternatives meets the demands consistent with that of an emergency response (although Alternative 5 comes the closest with its emphasis on natural processes to maintain or move toward desired conditions, increased buffers for riparian areas and targeted endangered species, 745,286 acres of recommended wilderness, standards instead of guidelines for livestock grazing, and vacant allotments remaining unstocked until site-specific NEPA analysis is completed). The Draft Plan's preferred alternative (alternative 2), which was developed iteratively through issue identification at community meetings and other modes of regional stakeholder feedback, provides a proposed action based almost solely on compromise and local politics. It does not rise to the level of urgency or seriousness that the BAS demands, and it fails to address the common good and general welfare of all non-participating stakeholders, including U.S. residents and all future generations that, under Sec. 102 of NEPA, deserve an "appropriate alternative" that "recognize(s) the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment."

In summary, the GNF has not provided the public with an "appropriate alternative" that adequately recognizes the worldwide and long-range character of our global climate and ecological crises, or that fulfills its responsibility as trustee of the environment for succeeding generations.

Part Two – The Solution

Of course, it's easy to criticize! But what would an "Emergency Response Plan" look like? If we want our new Forest Plan to maximize the ecological resilience and resistance of ecosystems within the GNF, what are the actions available to land managers that could realistically be implemented on a landscape scale that might make a meaningful difference while the "window of opportunity" is still open? In truth, it's not a very long list due to "the downward trend in budget and staffing levels (that) continue to limit management's ability to keep up with the demand for forest resources and uses and represent a significant threat to forest management's ability to implement ecological restoration and adaptation in a timely manner."

What we're looking for, then, are low cost/labor actions and tools that "treat" as many acres as possible. Realistically, there are only four possibilities:

- 1) Maximize wilderness acres.
- 2) Continue to use fire as the primary restoration tool.
- 3) Minimize grazing impacts.
- 4) Prioritize the identification and protection of refugial areas.

Wilderness

The BAS has clearly identified massive rewilding and the protection of the earth's remaining wild lands as a critical need to forestall global ecological collapse. With at least a million species now threatened with near-term extinction globally, scientists and policy makers are currently finalizing goals to protect at least 30% of the earth's lands and oceans by 2030 (Thirty By Thirty), with the hope of protecting 50% of the world's lands and oceans by 2050 in a last ditch effort to stave off the worst impacts associated with our ongoing mass extinction event. The protection of wildlands also stands as one of the most important tools for addressing climate change. As a "Natural Climate Solution," the restoration and protection of wildlands is a proven way of storing and reducing



Photo: Mike Fugagli

carbon emissions in the world's forests, grasslands, and wetlands. Although traditional arguments for wilderness designation remain valid, maximizing wildland areas wherever and whenever it is still possible is perhaps the most effective and inexpensive tool land managers now have to address our global climate and ecological crises. The Gila National Forest has a responsibility to maximize acres of recommended wilderness in its final Forest Plan Revision as its primary collaborative contribution to the globally urgent 2030 climate and biodiversity goals.

Fire

The Draft Plan identifies fire as the GNF's primary restoration tool (sadly, they failed to identify wilderness designation as restoration tool at all!). The GNF's emphasis (and expertise) on returning fire, within its natural range of variability, to fire-adapted ecosystems within the GNF is commendable. As a tool proven to confer ecological resilience and resistance at a landscape scale, the GNF should be encouraged to continue its groundbreaking work as a leader in the American Southwest in regard to fire management. But the Draft Plan is filled with mixed messages regarding fire. The old adage that "grazing prevents blazing," often touted by ranching communities in the Southwest, highlights the contradiction between the GNF's stated goal of increased foraging production, and the presence of the fine grasslands fuels that are needed to carry frequently recurring, low-intensity fire across fire-adapted grassland landscapes. And as we have seen throughout the past century, the absence of fire (due to a lack of ground-level fuels) in fire-adapted landscapes has led inexorably to the encroachment of woody species and the development of ecological systems characterized now by the potential for catastrophic, high-intensity fire. The Gila National Forest cannot have it both ways; fires burn or not depending on available fuel loads. *Maximizing ecological resilience and resistance of fire-adapted landscapes in the GNF, particularly grassland landscapes, requires the prioritization of fuels over forage.*

Grazing

Other than the reduction of grazing pressure, the Gila National Forest has no discretionary, low cost labor tool at their disposal with the power and potential to immediately increase landscape-scale resilience and resistance throughout the upper Gila watershed. Reducing grazing impacts requires no act of Congress like wilderness designation does, and there is no need to wait for stochastic events like wildland fire ignitions in order to treat hundreds of thousands of acres. Unfortunately, under all of the proposed alternatives in the Draft Plan, total grazing pressure on the GNF is maintained or increased with the stated goal of increasing overall forage production.

At the heart of the grazing issue is the GNF's multiple use mandate that has always pitted regional economic benefits against overall landscape health. In normal times, the GNF's effort to balance economic sustainability with ecological integrity might be considered a reasonable approach, but these are not normal times! During an unprecedented ecological crisis, trying to balance cattle grazing – a highly subsidized economic use of the forest - with fundamental ecosystem services like soil retention and water storage is highly irresponsible. Just look at the global response to the COVID-19 outbreak: economic considerations are put aside in favor of the public's health and safety. During this rapidly closing window of opportunity to forestall regional and global ecological collapse, the GNF must prioritize ecological integrity and ecosystem services over economic uses of the forest.

Remarkably, the GNF has tried to assure us in the Draft Plan that undesirable grazing impacts will be controlled in the future through "adaptive management" based on rigorous monitoring protocols. But it's hard to imagine a moment in time when the adaptive management framework should generate a more serious response from decision makers than this current moment of unprecedented and potentially irreversible ecological change. If there was ever a moment in time when the adaptive management framework should prompt a course correction, this is it!

In general, grassland ecosystems are more resistant to ecological type conversions than are forest and woodland ecosystems under increasing temperature regimes. Unfortunately, most of the carbon stored above ground in coniferous forests and woodlands is expected to be released into the atmosphere through combustion and decomposition as these systems suffer massive mortality events in coming decades. The vast majority of carbon stored in grasslands, however, is underground, making the integrity of these systems vastly more important as reservoirs of stored carbon in the years ahead. Protecting the carbon sequestered in grasslands should be a primary objective of the GNF as they work collaboratively with land managers worldwide to achieve climate stability.

Although grasslands in the American Southwest are expected to be more resistant to ecological type conversion than higher elevation coniferous forest and woodland communities, they are still expected, even in the total absence of grazing pressure, to trend toward desertification under future warming scenarios. Decreases in average soil moisture content, especially during hot, dry summer months, combined with increasingly extreme precipitation events and a general decline in productivity, are expected to negatively affect soil stability. When grazing impacts are added as an additional stressor, processes leading to accelerated desertification will be amplified. In addition, despite the possibility that in some grassland ecosystems, and under some very specific management protocols, grazing may be used as a tool to sequester atmospheric carbon, the vast majority of scientific studies suggests grazing pressure reduces carbon storage in grassland habitats. In addition, even in those special circumstances where carbon sequestration can be increased by intensive cattle management, the carrying capacity of the soil for carbon storage is limited and any benefits are overshadowed by total cattle-generated methane emissions. Comprehensive reviews of the scientific literature have conclusively shown that grazing is a net producer of GHGs, and cattle production is a significant contributor to global heating.

Climatic Refugia

Lastly, we come to the issue of "climatic refugia." As average temperatures continue to rise, and ecosystems within the GNF are pushed outside of their historic range of environmental variability, biological diversity, at least in the short to medium term, may find critical refuge on the landscape where special environmental conditions allow native species and ecosystems to persist. Protecting areas within the GNF that have unique microclimatic conditions such as soil type, topography, and hydrology will be particularly important in the increasingly stressful decades just ahead. Shaded slopes, such as the northfacing slope of Tadpole Ridge, as well as deep river canyons and spring areas are all examples of climatic refugia.

Currently, there is no effort by the GNF to identify potential refugial areas or to prioritize their protection. Under the new Forest Plan, potential climatic refugia should be immediately identified and protected as one of the GNF's highest priorities. This is especially true in areas with high resilience and high biotic potential like the mainstem, wilderness reach of the Gila River, where the ecosystem's ability to provide critical refuge to a host of species and ecosystems is currently being undermined by an out of control population of unowned, non-permitted feral cattle. For three decades now, the wilderness reach of the Gila River has suffered impacts from this self-sustaining population of wild cattle, leaving what could be the Gila's most important refugial area subject to the damaging effects of repeated catastrophic scouring during high flow events.

It's time to let the GNF know that the continued presence of feral cattle in the Gila's most important refugial area can no longer be tolerated. In the Draft Plan, they have once more perpetuated the fiction that they cannot deal with the feral cattle issue without permission and collaboration from the NM Livestock Board, despite the fact that legal opinion *Continued page 10* and subsequent case law clearly demonstrate that no State agency, including the NM Livestock Board, has any management authority over this wild population of cattle because they are not defined as "estray" and do not meet the state's definition of "livestock." The GNF should act immediately, and unilaterally, if necessary, to remove all feral cattle from the mainstem, wilderness reach of the Gila River so that the restoration and recovery of this critical climatic refugial area can proceed.

The Upshot

It bears repeating: our new Forest Plan has to be an "Emergency Response Plan." We are facing a global and regional ecological emergency, and our revised Forest Plan needs to acknowledge that and respond appropriately to our new and highly disturbing reality. Currently, the Draft Plan is a business-as-usual plan, and although the reality of climate change is cursorily acknowledged in some sections, nowhere in the Draft Plan does one feel a sense of urgency. Nowhere in the Draft Plan are we assured that the GNF is responding appropriately to the twin existential crises of global heating and biodiversity loss that now threaten civilized human life and the rest of the living world.

As we all sit at home, sheltering in place in response to the COVID-19 pandemic, we hope you are reminded of the words of Greta Thunberg, the 17-year old climate activist from Sweden: "In an emergency you change your behavior." If the coronavirus pandemic has taught us anything, it's that you can't effectively respond to an emergency without acting like it is one.

We know everybody is stressed out right now, and we know that forest planning is probably the last thing on your mind. But like it or not, this is our "window of opportunity." Empowered by the National Environmental Policy Act, or NEPA, this is our chance to convince the GNF to change course. The science is on our side. Numbers matter, and your comments in response to the Draft Plan are absolutely critical. Please, for the upper Gila watershed that we all love so much, send a comment to the GNF and let them know that, in this time of unprecedented ecological change, they have to change their behavior. Let them know that maximizing the resistance and resilience of the Gila needs to be their highest priority right now. Let them know that in the exact same way that economic considerations have taken a backseat to public health concerns during the COVID-19 pandemic, traditional economic uses of the forest must take a back seat to ecological integrity during the life of our new Forest Plan.

Learn More About the Draft Forest Plan and How to Comment Ioin our FREE Webinar

April 6, 11am to 1pm

CHECK YOUR EMAIL FOR INVITATION LINK

GoToMeeting is free and easy to use. Please download ahead of time at www.gotomeeting.com

How to Submit Comments

The Gila National Forest is accepting comments online or by mail.

1. Use the online commenting tool, CARA: Electronic comments are preferred via the comment analysis and response application (CARA):

https://cara.ecosystem-management.org/ Public//CommentInput?Project=51887

Enter your comment by going to the CARA link above, or selecting the "how to comment link" on the project webpage. In the CARA online form, enter your contact information and either add your comment directly into the text box, or upload a letter or form by selecting attachment; ensure you hit submit when you are done.

2. Mail a letter: Gila National Forest, ATTN: Plan Revision Team, 3005 E. Camino del Bosque, Silver City, NM 88061.

In Summary:

• The Draft Plan is missing almost entirely, a theme, a structure, and content that is consistent with the scope, scale, and timing of humanity's global ecological emergency.

• The expected life of our new Forest Plan – the next fifteen years – is perfectly concurrent with the "window of opportunity" that the Best Available Science (BAS) gives humanity before human agency is completely lost as a contributing factor in the trajectory of our environmental future.

• The science backing up the urgency of this moment is very strong and is increasingly uncontested by defendants and recognized by the courts.

• The BAS supports the view that humanity is the dominant driver of planetary change, and the cumulative impact of human activity is rapidly accelerating the Earth into its sixth known mass extinction event.

• The global biodiversity crisis is not even addressed in the Draft Plan, despite its distinct role as one of the principal drivers of global ecological collapse.

• The global ecological emergency translates regionally into a "Forest Emergency."

• Over 90% of the land area of Arizona and New Mexico is threatened with ecological type conversion by the end of the 21st century.

• The BAS predicts the massive mortality of needleleaf evergreen ecosystems (coniferous forests and woodlands) throughout the Southwest by the end of the 21st century due to heat related stressors.

• The final Forest Plan Revision needs to be an "Emergency Response Plan."

• In an era of rapid and accelerating ecological change, mandates of harmony, ecological sustainability, and persistence, (ecological stability) should be interpreted as the urgent and legal responsibility of land managers to maximize, within their inherent ability, ecological resilience and resistance.

• A more meaningful and reality-based vision for the GNF's Draft Plan would look something like this: In response to unprecedented global/regional ecological change, and the imminent threat of irreversible ecological collapse due to our world-wide climate and ecological emergencies, maximize the ecological resilience and resistance of landscapes within the Gila National Forest in order to fulfill the responsibilities of this generation as trustee of the environment for succeeding generations.

• The GNF has not provided the public with an "appropriate alternative" that adequately recognizes the worldwide and long-range character of our global climate and ecological crises, or that fulfills its responsibility as trustee of the environment for succeeding generations.

• The GNF has a responsibility to maximize acres of recommended wilderness in its final Forest Plan as a vital contribution to globally urgent climate and biodiversity goals.

• Maximizing ecological resilience and resistance of fire-adapted landscapes in the GNF, particularly grassland landscapes, requires the prioritization of fuels over forage.

• The GNF has no other discretionary, low cost labor tool at their disposal with the power and potential to immediately increase landscape-scale resilience and resistance throughout the upper Gila watershed than the minimization of grazing pressure.

• During this rapidly closing "window of opportunity" to forestall regional and global ecological collapse, the GNF must prioritize ecological integrity and ecosystem services over all economic uses of the forest, particularly grazing.

• If there was ever a moment in time when the GNF's "Adaptive Management Framework" should prompt a major course correction, this is it!

• Protecting the carbon sequestered in grasslands should be a primary objective of the GNF as they work collaboratively with land managers worldwide to achieve climate stability.

• Comprehensive reviews of the scientific literature have conclusively shown that grazing is a net producer of greenhouse gases, and cattle production is a significant contributor to global heating.

• Under the new Forest Plan, potential climatic refugia should be immediately identified and protected as one of the GNF's highest priorities. This includes the immediate development of a once-and-for-all plan to remove all feral cattle from the mainstem, wilderness reach of the Gila River, our most important potential refugial area.

• The GNF needs to revisit its list of Species of Conservation Concern, and work with the regional forester, to provide a comprehensive assessment of all coniferous forest specialist species that are threatened with plan area extirpation this century due climate-driven habitat loss.



Photo: Carol Ann Fugagli

Species of Conservation Concern

By Mike Fugagli

Last year, in UGWA's comments on the preliminary Draft Plan, we let the Gila National Forest (GNF) planning team know that its Species of Conservation Concern (SCC) list was inadequate and failed to anticipate the existential threat to a host of specialist species, in multiple taxonomic groups, that are threatened with extirpation in the plan area over the course of this century due to the complete loss of their habitat from the effects of climate change (ecological type conversion). Examples include Olive Warblers and Red-faced Warblers, pine forest specialists whose habitat is expected to disappear in the coming decades.

Although the SCC list is supposed to guide forest planning, the designation of SCC species is not actually a forest plan decision, with the regional forester retaining the authority to change the SCC list based on new information. The SCC list used to develop the current Draft Plan was developed under the assumption that ecosystem types within the GNF, and the species that they contain, will remain within their historic range on environmental variability, despite the dramatic results of the climate change vulnerability assessment that predicts the complete loss of some highly vulnerable habitat types, like spruce-fir forests.

The Draft Plan has failed to make the logical connection between predicted habitat loss due to climate change and the specialist species that those threatened habitats contain. The GNF needs to revisit its SCC list and work with the regional forester to provide a comprehensive assessment of all specialist species that are threatened with extirpation in the Gila National Forest this century due to climatedriven habitat loss.

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