



SEQUOIA FORESTKEEPER®

E-UPDATE

December 2016

CONTENTS

[Thank you!](#)
[Why Support SFK?](#)
[California Spotted Owl](#)
[Pacific Fisher](#)
[Wildlife Camera Monitoring](#)
[2016 Intern Team](#)
[Cedar & Rough Fire Trips](#)
[Not One More Green Tree](#)
[Isabella Dam update](#)
[Recent SFK Actions](#)
[News Around the Net](#)
[Cunningham Grove](#)
[Adopt a Sequoia](#)
[SFK Online](#)
[Donate](#)
[Contact Information](#)
[Unsubscribe](#)

Time to Give Thanks

Thank you to our many donors and supporters. The professional staff and board appreciate all monetary donations in addition to help in getting the word out that the health of the forest and its denizens are as important as economic health. Actually more so, since humans are healthy when the environment is healthy. SFK is the eyes, ears, and voice of the forest and the voice of the many people who understand that the legacy of the forest is not what we take from it, but what we leave. Thank you from the bottom of our hearts.

Why Support SFK?

If you shop at Amazon.com you can support Sequoia ForestKeeper at no expense to you. Amazon.com donates 0.5% of every purchase to SFK when you use the link: smile.amazon.com and name Sequoia ForestKeeper as your charity.

Our founder, Martin Litton said, "*When you compromise nature, nature gets compromised. It's gone, it's hurt, it's injured, and you gain nothing back ever.*"

- Our first and foremost priority is to monitor the activities of local agencies by reading and responding to every project that will have a deleterious effect or a cumulative impact on the varied ecosystems of the southern Sierra Nevada.
- The effects of climate change are evident and happening at an escalating pace in the southern Sierra Nevada. Two effects not integrated into other climate science are the impacts of water extractions from forested ecosystems and the destruction of mycorrhizal fungi/root systems. Out of sight out of mind is no way for managers to promote ecosystem integrity. SFK's goal is to make water extraction and mycorrhizal relationships standard with every environmental review.

- The community is key to prioritizing Big Picture concepts with all of its niches. The watersheds of the southern Sierra Nevada need to be intact to protect the communities that lie down-slope of the forest from floods and mass wasting land movement.
- SFK is not always an adversarial organization, we strive to collaborate with agencies, working within the local and environmental communities to build and sustain long-term relationships to foster the understanding that each individual must walk a gentler path to create a legacy of a healthy planet.

[BACK TO TOP](#)

California Spotted Owl

Sequoia National Forest is home to the California Spotted Owl (*Strix occidentalis occidentalis*). The Spotted Owl relies on old-growth-forest in the Sierra Nevada. In the southern Sierra, they prefer decadent white fir and yellow pine trees to nest and roost. While the Forest Service keeps stating that the fire threat is high when the forest has down trees and limbs near the ground, these conditions are absolutely necessary for the survival of this brown eyed charmer. Great Horned Owls and Barred Owl are larger and prey on Spotted Owls, but tight canopy and thick understory limbs, which impede the flight of these predators, allow the spotted owl to escape. Removing lower limbs and smaller trees ensures the eventual extirpation of the owl.



How do we help the owl and prevent fire, simple really; reduce human-caused, non-restorative fire by enforcing fire restrictions with heavy fines and jail sentences. We laud Sequoia Forest Supervisor, Kevin Elliott, for restricting all fire on the forest during the height of fire season. This never happened with his predecessor. The forest now

uses lightning started fires to help clear the duff layer and help reduce future conflagrations. Restorative lightning fire is working without commercial timber harvest.

What hasn't happened yet? Sequoia National Forest has not stopped cutting all trees greater than twelve-inches in diameter. In the southern Sierra Nevada, the low annual precipitation causes very slow growth of trees. From 1850 to 1900, the largest trees were harvested leaving smaller trees to renew the forest. It takes over 100-years for a yellow pine to grow to 30" in diameter. Under Forest Service logging policy, they can harvest up to 30" diameter trees; and the end result is not pretty. Implementing this forest harvest policy where trees use to live over 500-years, creates a reality that there never will be a truly mature forest again, let alone old-growth. No wonder the California Spotted Owl has declined over 50% in our National Forests. Although, where logging is prohibited, in National Parks, the owl's population is actually experiencing a slight increase. But the Parks aren't big enough to provide enough habitat to sustain a viable population.

Sequoia ForestKeeper works to protect old-growth habitat and all other ecosystems of the southern Sierra Nevada. Humans may not know it, but protecting these ecosystems protects the watershed that provides them with water and protects them from floods.

Scientists at the Wild Nature Institute have discovered the following about how owls fare with fire:

- Spotted owls commonly survive and remain to reproduce in territories that experience severe fire.
- Spotted owls forage in severely burned habitat.
- Home-ranges are comparable in burned and unburned landscapes.
- Spotted owls nest and roost in crown burned stands that are adjacent to high canopy cover (unburned/low burned).
- Only peripheral sites (often empty and non-reproductive) have lower habitation after severe fire.
- Post-fire logging triggers territory abandonment and decreases owl survival rate.

Although, Spotted Owls favor green forests in which to nest and roost, the importance of unburned or low-severity [refugia](#) within the larger mosaic of mixed-severity fire cannot be understated. The moral is you can take the forest out of the mountains, but you can't take the Spotted Owl out; it will only persist where humans stop altering its habitat through logging and other landscape level disturbance.

For more information on the latest research read these scientific publications by Wild Nature Institute.

Bond et al. 2016. [Foraging habitat selection by California spotted owls after fire.](#)

Lee and Bond 2015. [Previous year's reproductive state affects Spotted Owl site occupancy and reproduction responses to natural and anthropogenic disturbances.](#)

Lee and Bond 2015. [Occupancy of California Spotted Owl sites following a large fire in the Sierra Nevada, California.](#)

Odion et al. 2014. [Effects of fire and commercial thinning on future habitat of the Northern Spotted Owl.](#)

Lee et al. 2013. [Influence of fire and salvage logging on site occupancy of spotted owls in the mountains of Southern California.](#)

Bond et al. 2013. [Diet and home-range size of California Spotted Owls in a burned forest.](#)

Lee et al. 2012. [Dynamics of California Spotted Owl breeding-season site occupancy in burned forests.](#)

Bond et al. 2010. [Winter movements by California Spotted Owls in a burned landscape.](#)

Bond et al. 2009. [Habitat selection and use by California Spotted Owls in a post-fire landscape.](#)

Bond et al. 2002. [Short-term effects of wildfires on spotted owl survival, site fidelity, mate fidelity, and reproduction.](#)

[BACK TO TOP](#)

Pacific Fisher Denied Protection: Politics Undermines Science Again

On April 14, 2016, the U.S. Fish and Wildlife Service (Service) once again denied protection to the Pacific fisher under the Endangered Species Act. Sequoia National Forest is home to this mid-sized forest carnivore that was proposed for federal protection in October 2014. The petition was to protect the west coast population of fisher throughout its range in California, Oregon and Washington. The timber industry once again decided that destroying irreplaceable, old-growth forest was more valuable than the lives of these amazing creatures. Managers of the Service seem to have a frontier mentality mission and are actively pursuing the extinction of top-predators throughout the country. The scientific evidence is overwhelming that the survival of the fishers is threatened, mostly by logging, toxic chemicals used by marijuana growers, roads, and extirpation of porcupines-the fishers' preferred food source.



Fisher photo courtesy of <http://www.forestwander.com>

Sequoia ForestKeeper remains committed to protecting the Pacific fisher by monitoring for its presence in logging project areas. Our cameras document where they occur and our attorney and partner organizations will file suit to protect its old-growth forest habitat that is on the verge of extinction in the southern Sierra Nevada.

[BACK TO TOP](#)

Wildlife Camera Monitoring

During the 2016 summer season, SFK placed five cameras in Sequoia National Forest's proposed Summit and Tobias Timber Sale areas on two adjacent Ranger Districts. Cameras were temporarily mounted across ephemeral and permanent streams where wildlife activity typically is high. We follow standard fisher camera survey protocols with bait scented with one or two commercially purchased furbearer scent lures; fisher musk and/or Gusto (a combination of many stinky mammals musk) to attract Pacific fisher to our wildlife cameras.

For the first four weeks of the 2016 summer season, we used only fisher lure in an attempt to prevent attracting so many bears and to see if fisher would be more attracted to the baited cameras. But, we documented no fisher while only fisher lure was used. The cameras recorded fewer instances of all animals than previous years, until we resumed using the Gusto lure.

The camera stations were most productive in the final two weeks of surveys when we used only the Gusto lure. The cameras captured eleven species total with the majority of photo incidents of bear and deer. The remote cameras photographed only one Pacific fisher this year after resuming the use of Gusto lure alone. We hope that the fisher was just not interested in the fisher lure, and that it was not an omen that the continuing drought is further reducing the critically low population of fisher. The entire camera survey area burned during the Cedar Fire, which began a week after the cameras were removed.

Here is the breakdown of data collected: camera stations: 5, camera survey period – 6-30-2016 until 8-8-2016 for six weeks of data. Fifty-six unique events = eleven species, ten mammals, one bird. Temperature range 45-78.

| Species | #Stations detected | incidents per species | Temp range | Notes |
|----------------------------|--------------------|-----------------------|------------|--|
| cattle | 1 | 4 | 45°F-69°F | active day and early evening |
| gray fox | 4 | 9 | 50°F-68°F | active midnight to 5 am |
| American black bear | 3 | 13 | 50°F-68°F | active 7-9 pm then again at 5 am |
| mule deer | 4 | 20 | 50°F-78°F | active mostly at night but some during day |
| Pacific fisher | 1 | 1 | 51°F | active early morning |
| bobcat | 1 | 2 | 52°F-58°F | active 1-4 am |
| western gray squirrel | 1 | 1 | 53°F | active early morning |
| Douglas squirrel | 1 | 1 | 56°F | active morning |
| California ground squirrel | 2 | 3 | 57°F-78°F | active morning until noon |
| northern flying squirrel | 1 | 1 | 67°F | active near midnight |
| Steller's Jay | 1 | 1 | 70°F | active midday |



The Pacific fisher inhabits old-growth conifer forests in the wetter areas of Sequoia National Forest. This area is the southernmost part of its range. It dens in cavities up to 70' up a tree. Males have territories over twice the size of females.



Gray fox is found in oak/conifer woodlands. It is one of four native species of canids in the region. It is the only "dog" that regularly climbs trees with its semi-retractable claws. Its bark is an eerie hoarse cough.



Bobcats are one of two species of native cat found in Sequoia National Forest. The bobcat was widely trapped for its fur and before California banned the practice in November 2015.

<http://www.latimes.com/local/lanow/la-me-ln-bobcat-trapping-ban-20151121-story.html>



The American black bear remains the only species of bear in California. California grizzly decorates the state flag but has been extinct since 1922 when the last of its species was slaughtered. The black bear filled many of the grizzly bear niches but remains absent from the valley floor. No effort is made in Kern County to protect bears by mandating bear proof trash receptacles. SFK will work with county officials to try to make that happen.



California mule deer are found throughout the Sierra Nevada. There are five subspecies of mule deer in California. The rut occurs from September and can go through March. Gestation is between 183-218 days. Most females give birth in the Sierra Nevada in July and August. Healthier females have shorter gestation periods.



Steller's Jay are the "blue jay" of the west. They are only found in the conifer belts throughout the state. Jays are in the crow family and quickly learn that campsites are great places to steal food.



California ground squirrels are ubiquitous wherever cattle are found mostly west of the Sierra Nevada. They thrive in overgrazed areas. The California ground squirrel is found from the southern half of central Washington all the way into northern Baja California. The squirrel is naturally partially immune to rattlesnake venom and will increase the blood flow to its tail to thwart a rattlesnake strike on its body.



Cattle graze on Sequoia National Forest year-round. In winter they occupy the lowlands and in summer they are found throughout the forest, especially in sensitive meadows. For each month a cow and her calves or five sheep are on their allotment in the forest, ranchers pay \$2.11.

<http://www.thewildlifeneews.com/2016/02/03/grazing-fees-still-a-sweetheart-deal-for-private-industry-agencies-abashed-at-having-to-raise-it/>



Douglas squirrel is an arboreal, diurnal mammal found in mature western forests. Its range has expanded southward with the maturing of white fir in the Greenhorn Mountain range, after white fir was almost wiped out in the 1800's by loggers. Douglas squirrel is one of the few species that eat sequoia cones and help to release sequoia seeds without the heat of fire, which is the predominant way sequoia cones open.



Western gray squirrel is one of three native species of arboreal squirrels in Sequoia National Forest. It is subject to extreme poaching by certain groups of people who have decimated populations throughout gray squirrel range. Two species of tree squirrel have been introduced to California, fox squirrel and eastern gray squirrel, both of these are more urban but compete for western gray squirrel habitat.

[BACK TO TOP](#)

2016 Interns

This summer our intern team and staff surveyed the proposed Tobias, Summit, and Frog Timber Sales. After our surveys were complete and one week after the intern season was over, the Cedar Fire began. This year we received a small grant to conduct surveys for iNaturalist and eBird and we documented plants and wildlife almost exclusively within the footprint of the fire. Check out our iNaturalist Projects:

<http://www.inaturalist.org/projects/cedar-fire-sequoia-national-forest-16-august-2016> and

<http://www.inaturalist.org/projects/sequoia-national-forest-including-giant-sequoia-national-monument>.

Sequoia ForestKeeper enjoyed the short time we had with interns Gina Shearn and Gavin John this summer. They wrote essays, in their first week, on what they hoped to learn as SFK interns. Read these fun insights below. Unfortunately, we were not able to secure exit interviews, as time ran out.

[BACK TO TOP](#)



Gavin John

My name is Gavin John and I am a recent graduate of UC Davis with a degree in animal biology with an emphasis in agroecology and a minor in soil science. I have lived in California my whole life, and my passion for the outdoors in conjunction with the vibrant agriculture industry in California has greatly influenced my education and career ambitions. It is apparent that short-term human interest and sustainability are often at odds with each other, and my love for the outdoors has motivated me to peruse an education and career that is in abundance will both promoting the wellbeing of people and the environment. This led me to study agriculture, as I am interested in the intersection between science and food security.

Working for Sequoia ForestKeeper will be my first experience working outside of agriculture. I am very interested in plant biology and ecology, and I am eager to gain experience in ecosystem preservation, specifically in an ecosystem I have come to appreciate so much over the years for its unique ecology and intrinsic beauty.

From my experience working in the Sequoia National Forest, I hope to become a more competent naturalist. I think having an understanding of ecological interactions and the effect of humans on the environment is integral to being a well-rounded biologist. From my experience in the Sequoia National Forest, I anticipate gaining real world experience that will be a valuable asset to understanding the balance between human interests and maintaining the integrity of the forest.

Most of my academic and work experience has pertained to soil science, specifically soil biology. The research I have been involved in explores the relationship between soil biota and plants, and I am interested in understanding how plants and soil organisms have evolved together and interact with one another. I hope that this experience will supplement my understanding of plant-soil interactions; specifically how soil moisture effects the distribution of plants. Furthermore, given the drought in California, I think assessing the availability of water is paramount to monitoring the health of the ecosystem.

Additionally, I am interested in gaining experience with field identification, since most of my work experience has taken place in a laboratory setting. This is a useful skill to have and I think it will be beneficial to instill good record keeping practices.

Gina Shearn

When one thinks of an internship, one may expect to be grossly exploited, dealt numerous meaningless tasks and stuck in a drab, sunless office space in which to while away the precious hours of summer; not in this internship. When I first applied to Sequoia ForestKeeper's internship, I was dazzled by the prospect of working in the Sequoia National Monument for months on end. What recent graduate Bio student wouldn't be thrilled by a summer of nature immersion and solitude? Quickly and without hesitation, I applied to the position and was soon after honored with an offer of two months of outdoor field research experience with Sequoia ForestKeeper.

I am a 21 year-old biology student who studied at Cal Poly, San Luis Obispo. Before this internship, you could find me doing all sorts of outdoor activities, when not stuck in class, of course. My favorites included a number of sports, beach volleyball and soccer most frequently, as well as biking, running, hiking, you name it. I come from a family of four girls, and I think my active lifestyle came from my dad trying to get us outside doing the things he loved. My mom is slightly less outdoorsy, but man can she cook! Thankfully I inherited both his adventurous side and her pasta skills, which I think fit well in the many days of camping and carbo-loading ahead.

The first task that I look forward to in this internship is working with wildlife cameras out in the field. There are few other scientific instruments that capture general presence/absence data of animal species and, if we can prove the presence of the Fisher in the Sequoia Monument, we would further prove the usefulness of the cameras and necessity of preserving the forest. In many scientific fields and outdoor positions, the use of cameras is heavy and necessary. I am pleased to know that in the near future I will become trained and competent in setting up and baiting these tools as well as learning to analyze or simply enjoy their products.

The next item that intrigues me with this internship is looking at and qualifying the effects of logging in the Sequoia Monument. I am continually irked to hear that the US Forest Service bends the rules to allow heavy logging of large trees to continue. I was quite unaware that so much logging and illegal actions have been taken by this organization, one that I had previously believed to be entirely credible. Simply the fact that they still assert that logging decreases fire risk blows my mind; the "best available science" clearly indicates otherwise and thankfully it seems that the latter claim holds up more often in court. Therefore, I am curious to see what kind of pure scientific data we can acquire to help "nudge" the USFS along to making more eco-friendly decisions.

My next area of curiosity in this internship is gaining experience working with soil analysis. I currently have no previous contact with soil instruments and in fact don't even know what the different soil types and horizons are. Reading over the protocol for the soil testing, it seems I have a lot to learn! I'm anxious to use the sample collections, test the soils manually for their type characteristics, and use the drying oven and other tools to infer more about what the soils and their locations mean for the present and future biota. The proposed experiment of testing the soils in logged and unlogged groves for moisture and quantitative traits in order to conclude whether or not human water extraction (i.e. wells or diversions) have a significant effect on soil water holding capacity is quite intriguing. My preliminary thoughts lean toward the conclusion that obviously more wells and man-made diversions mean less water available in the soil, but we will find out for sure in a matter of weeks.

Another outcome I hope to have with this internship is simply being able to identify more plants and animals by site. I am not entirely dedicated to knowing scientific names, but definitely look forward to knowing at least good number of the ones we will encounter in the field so I may better describe my observations in wildlife surveys. I have a passion for impressive forest ecosystems and as such am pleased with the chance to get to know the different firs, pines, and other classic vegetation species that we will come across. I also am a big fan of forest

mammals and very much look forward to sharpening my skills in identification of their kind. In fact, if I am fortunate enough to see a marmot or spotted skunk, my week will most certainly be made! Over all though, learning more of the present biodiversity by name will surely be beneficial in my professional career.

Over all, I believe this internship presents incredible opportunities for me to hone my field experiment skills as well as my holistic naturalist side. The green, tree-filled Sequoia forests are among my favorite ecosystems and I can't wait to be thrown head first into the mountains that house them and working toward salvaging their rights to exist by means of unbiased science. I hope to find significant conclusions from Gavin's and my research this summer in order to further Sequoia ForestKeeper's mission to protect these incredible lands for future generations to love and enjoy as we do today.

Ed note: unfortunately Gina left us early due to car problems, but we were able to complete many of the tasks we had envisioned for our summer program with Gavin and Alison as the field team.

[BACK TO TOP](#)

Cedar and Rough Fire Aftermath

Fire bad, must log, put out flames good! **Not necessarily.**

Smoky bear was right, humans for the most part should not set fires, but not all fires are bad.

Whether set by humans or nature, fire is one of nature's best techniques to make the forest resilient. The time-tested ecological purpose of restoration through fire can be achieved when humidity is high and wind speed is low. But even extremely hot fires have benefits.

Crown fire areas, where many trees burn completely, are occupied by wildlife soon after the flames die down. Within a month, ferns, shrubs, and oaks will sprout from their roots. After the spring rains, many plant families flourish in post-fire areas creating carpets of spectacular color. Closed cone pines and sequoia cones open with heat and litter the newly exposed mineral soil with millions of seeds. The new forest will thrive as long as subsequent fires are not too frequent.



The view from Black Mountain Saddle on the Greenhorn Mountains demonstrates the mosaic burn of the Cedar Fire. There are many areas where overstocked, dead plantations burned completely.

When the Forest Service conducts post-fire "salvage" logging operations, it kills nearly three-quarters of the naturally-occurring conifer regeneration in high-intensity fire patches. Applying toxic fungicides and herbicides on the soil and cut stumps kills beneficial fungi and native shrubs, terminating [seral stage](#) development. 'Penny Pine Plantations,' monocultures of species that are frequently not genetically adapted to the region are planted too densely by well-meaning people after fire or clearcutting. These plantations are more easily subject to insect infestation and burn with greater intensity than naturally regenerated forests. Artificial tree plantations cost taxpayers about \$3 million for every 1,000 acres. Logging in the forest is extremely costly to taxpayers according to a report¹ by the late [Robert Wolf](#), a professional forester and policy

¹ 000323-7.WOL.F 17 year Sequoia.pdf P 2 of 3, 12 of 18, Sequoia NF, Reg. 5, CA, Part B, Per MBF Cut, Fiscal Dollars & Timber Cut

analyst. The average loss per acre to log from 1992-2004 was \$1,844. Sequoia National Forest typically runs a deficit each year. A chart from the Forest Service showed over the 17-year period of Sequoia National Forest logging projects from 1983-1999 an average annual loss of \$3,918,415. Interestingly there were zero dollars in sold timber in 1999 and that year Sequoia National Forest ended the year in the black with \$730,114. After the Giant Sequoia National Monument was created and the unsustainable logging practices of the 1980s ended, the annual economic losses were reduced 60%.

Rough Fire - <http://inciweb.nwcg.gov/incident/4456/>

The Rough Fire started with a lightning strike in the Kings River drainage in Sierra National Forest on July 31, 2015. The fire had a containment perimeter of 151,623 acres with the breakdown of acres by ownership as follows: Kings Canyon National Park: 9,285 acres, Sequoia National Forest: 82,573 acres, Sierra National Forest: 58,541 acres, state Lands: 6 Acres, and Private Lands: 1,090 acres. Cedar Grove in the Park, accessible via State Highway 180, which is controlled by the Forest Service, remained closed to the public until April 22, 2016.

Sequoia ForestKeeper staff visited the post-fire area during a Forest and Park Service open house in June 2016, although the dog and pony show opened little of the fire area for the public to actually see². It was disheartening to be left in the dark as to how the many burned giant sequoia groves fared during the fire and especially after the Forest Service's firefighting efforts. Many bulldozers through sensitive habitat may have been necessary in the heat of the firefight, but true efforts at ecological restoration detailed in the Burned Area Emergency Response (BAER) team report must be open and above board in order to trust Forest Service managers. Our government and its employees must be honest with the public, so that dialog and cooperation are achieved in returning the ecological balance that benefits nature not just consumptive users that hold political favor.



Post Rough Fire wildflowers were spectacular.



Post Rough Fire overstocked, even-aged plantations were severely burned. Mixed age forest fared much better.

SFK visited the area along Hwy 180 all the way to Cedar Grove in the Park and conducted surveys of the burned trees and the post-fire wildflower bloom. We were not able to see the burn in the Giant Sequoia National Monument sequoia groves except the Converse Basin Grove. There were areas along the highway, especially in plantations, which burned very hot, killing all of the densely spaced young trees. The wildflower bloom was spectacular, and our staff documented 97 species of plants and animals in the limited, publicly-open area along

² <https://jennielakeswilderness.wordpress.com/2016/05/07/public-invitation-from-the-sequoia-national-forest/>

the highway and in the Converse Basin Grove. See the ever growing list of species at iNaturalist [<http://www.inaturalist.org/projects/sequoia-national-forest-including-giant-sequoia-national-monument>].

A BAER (Burned Area Emergency Response) Team looked at the short-term and long-term effects that the Rough Fire had on the ecosystem and infrastructure. They recommended spending only \$229,972 on temporary and permanent rehabilitation along with PR efforts.

Rough Fire South BAER Reports are available online at:

http://inciweb.nwcg.gov/photos/CASNF/2015-10-03-0253-Rough-PostFire-BAER/related_files/pict20151018-172425-0.pdf

http://inciweb.nwcg.gov/photos/CASNF/2015-10-03-0253-Rough-PostFire-BAER/related_files/pict20151018-172954-0.pdf

[Rough NZ BAER Trails Report \(pdf 5,348 kb\)](#)

[Rough NZ BAER Botany Report \(pdf 1,945 kb\)](#)

[Rough NZ BAER Hydro Report \(pdf 1,874 kb\)](#)

[Rough NZ BAER Roads Engineer Report \(pdf 171 kb\)](#)

[Rough NZ BAER Geology Report \(pdf 935 kb\)](#)

[Rough NZ BAER Soil Report \(pdf 3,305 kb\)](#)

South Zone BAER assessments

[Rough SZ BAER Assessment Summary \(pdf 83 kb\)](#)

[Giant Sequoia Groves BAER Assessment Report \(pdf 2,597 kb\)](#)

[SQF Rough SZ Post-Fire BAER Roads-Engineering Rprt \(pdf 317 kb\)](#)

[SQF Rough SZ Post-Fire BAER Hydrology Report \(pdf 1,877 kb\)](#)

[SQF Rough SZ Post-Fire BAER Roads Report Summary \(pdf 116 kb\)](#)

[SQF Rough SZ Post-Fire BAER Forestry Assessment \(pdf 167 kb\)](#)

[SQF Rough SZ Post-Fire BAER Soils Assessment \(pdf 1,257 kb\)](#)

[SQF Rough SZ Post-Fire BAER Trails Assessment \(pdf 4,375 kb\)](#)

[SQF Rough SZ Post-Fire BAER Geology Assessment \(pdf 2,052 kb\)](#)

Cedar Fire - <http://inciweb.nwcg.gov/incident/4964/>

The Cedar Fire was human caused by an illegal off-road vehicle near the Cedar Creek Campground on August 16, 2016. Shortly after the fire started, the decision was made to create a huge perimeter for the ground firefight and to use only aircraft to attempt to cool the flames in the interior of the perimeter. Tree die-off in the area has been severe and it was announced that firefighter safety propelled this action. While the Forest Service and CalFIRE have been issuing press release after press release about how dangerous all the dead trees are and how they are almost going to spontaneously combust, a funny thing happened, the very red, dead trees adjacent to the flames did not catch fire. The wind driven fire eventually burned a perimeter of 29,200 acres, mostly on Sequoia National Forest - 22,407-acres, Giant Sequoia National Monument – 6,219-acres, BLM 65-acres, CDF 437-acres and 82-acres on private land.



Tiger Flat along Forest Highway 90, pre and post fire.

Public access to the Cedar Fire area has not been a problem. Hunters and motorcyclists pushed to reopen the area before the fire was extinguished. SFK staff was able to inspect the fire area along accessible roadways numerous times in October and November until the gate closed for winter. We found trees that had died prior to the fire, especially in plantations, that burned very hot with some plantations completely blackened. Areas where the forest was a mosaic of large and small diameter trees and shrubs, fared much better with more of an understory burn. The fire burned most intensely through the 1990 Stormy Complex Fire restoration area, reducing many of the plantations to charcoal sticks. Areas that had not been logged or burned in recent history had mixed intensity burn. Areas where water extractions were numerous, appeared to suffer more significant crown fire, while areas with no obvious water diversions fared better. Panorama Campground along Forest Highway 90 survived with minimal scorching. We did not examine the western slope vacation communities.

Woodpecker diversity was exceptional in the burned forest. Bluebirds and robins were also abundant. The Kern River Ranger District has not released any plans for hazard tree treatment on their continuing Summit Logging proposal of which several units burned in the Cedar Fire. The Western Divide Ranger District cancelled the Tobias Logging Project and has proposed "hazard tree" logging 300' on both sides of roadways. Since there are no 300' tall trees in the Cedar Fire area and this is prime Pacific fisher and California Spotted Owl habitat, this proposal is both reckless and in violation of the intent of almost every environmental law in the nation. The Giant Sequoia National Monument plan has been disregarded by a rogue manager who must be held to account for the damage done in the Monument. (Just look at the result of the "hazard tree" project in the Long Meadow Grove and the Trail of 100 (98) Giants, which removed trees that hold the precious soil and roots of the giant sequoia and buffer them against winds, the loss of those trees almost guarantees that more giants will topple. It is a miracle that no one was injured when the two giants fell in September 2011, after a disastrous hazard tree project.)

Sequoia ForestKeeper will continue to monitor any proposed action and will continue to document the biological diversity within the forest especially providing records in our archives of pre-fire life and surveys for post-fire life. See our developing Cedar fire project on iNaturalist at [<http://www.inaturalist.org/projects/cedar-fire-sequoia-national-forest-16-august-2016>].

[BACK TO TOP](#)

Not One More Green Tree

The annoying hype over the tree die-off is missing facts... the forest isn't burning any more intensely, flames aren't burning many of the dead trees, and instead green vegetation is burning. How can this be? The way fire officials

state it, one might think that trees spontaneously combust once they reach a certain state of dryness. To add insult to injury, the Forest Service is proposing green tree logging in the areas with the most intense die-off.

The dead and dying trees are more common in young, overstocked plantations than in closed canopy forest (which is hard to find in the southern Sierra Nevada and will be impossible, if the forest managers get their way.)



Most of these green trees are marked for death along Big Meadow Road. With 102 million dead trees, the Forest Service should cut no green trees.

The Forest Service continues to operate with the single notion that the forest is renewable and that logging, mining, grazing, and motorized recreation are the only “multiple use” factions that matter. In this century alone fires in the forest were made worse by plantations and human recreation in the forest. Add the almost hidden factor of humans draining every drop of water from the aquifers in the forest and you end up with dead trees. What you don’t end up with is bigger fires.

There have always been big fires, but when our houses burn because of a fire we are likely to try to blame something besides our own collective behavior for the tragedy. Fire happens and in the forest it is necessary, but it remains tragic in communities. Let’s stop allowing irrational fear of fire to drive the Forest Service mission to log at all costs. And certainly if the forest is dying in sections and healthy in others, then DON’T LOG the healthy forest! The seeds produced by trees that survive drought now, may be the genetic material to sustain a future forest with climbing global temperature minimums.

This is the list of currently active proposed Sequoia National Forest Green Tree Logging Projects.

KIRKLAND PLANTATION THIN

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=36971

PINEHURST FUELBREAK

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=49925

ALTA PROJECT

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=45951

SUMMIT PROJECT

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=48185

TOBIAS PROJECT - Cancelled because of the Cedar Fire but will resurface as Cedar/Tobias Salvage Sale

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=40890

WISHON TREE MORTALITY RESPONSE AND FUEL REDUCTION PROJECT

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=45069

FROG LOGGING PROJECT

http://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=34863

JOEY LOGGING PROJECT

<http://www.fs.usda.gov/project/?project=40280>

[BACK TO TOP](#)

Isabella Dam Progress

The timetable continues unabated for construction of the boondoggle, Isabella Dam Modification Project. The EIS has been full of inaccuracies with conflicting statements from Corps employees at public meetings about whether the dam will be raised to increase the reservoir capacity to 2.1 million acre feet. As the demonstrations at Standing Rock prove, the Army Corps of Engineers (Corps) has zero intent of protecting the environment or the people. The answer about whether the dam will be raised was not provided by staff at public meetings, but after and in response to our correspondence, they wrote in the last Supplemental Environmental Analysis that they would NOT raise the main spillway and therefore not increase the maximum pool. We will continue to monitor this closely.

Another distressing item is the Corps plans on dumping 1.8 million cubic yards of material on 52-acres above the water line on top of a seismically active fault at Engineers Point, which may cause a reservoir tsunami in a moderate to severe tremor and may overtop the newly rebuilt dam.

[BACK TO TOP](#)

Recent SFK Actions - click on links to go online for the pdf file to read.

21 November 2016 - [2030 Target Scoping Plan Comments on behalf of Sequoia ForestKeeper \(SFK\) for reducing climate impacts to disadvantaged communities, natural and working lands, croplands, and urban forest lands.](#)

14 November 2016 - [A letter asking Congress not to repeal rules protecting native wildlife on Alaska's National Refuges and Preserves.](#)

19 September 2016 - [Comment letter to Kern River Ranger District concerning potential issues with reissuance of Thomsen Septic Systems special use permit.](#)

13 September 2016 - [Letter from SFK and 16 other non-profits requesting that California Governor Jerry Brown not sign the amended S.B. No. 1383 Lara, Allen, Hancock, and Hill regarding regulating Short-lived climate pollutants due to exemptions for dairy and livestock methane emissions.](#)

6 September 2016 - [Comments regarding issuance of Special Use Permits \(SUP\) for Durrwood Bed and Breakfast without environmental documentation regarding continued water withdrawal from the over-allocated South Creek.](#)

25 August 2016 - [Comments from the Kern-Kaweah Chapter of the Sierra Club and Sequoia ForestKeeper about the Draft Environmental Impact Statement for the Draft Forest Plans for the Inyo, Sequoia and Sierra National](#)

[Forests. This plan could allow clear-cutting, group selection, and post-fire logging; techniques that have devastated the Sierra Nevada and forests nationwide.](#)

17 August 2016 - [Comments from the Kern-Kaweah Chapter of the Sierra Club, Sequoia ForestKeeper®, and the Center for Biological Diversity on the Draft SEA #5 regarding dams and spillway design refinements on the Isabella Lake Dam Safety Modification Project.](#)

4 August 2016 - [In this letter sent to the State Water Resources Control Board \(State Board\) and the Division of Oil, Gas and Geothermal Resources \(DOGGR\), eleven organizations, including SFK, raised a fundamental concern with the process for exempting drinking water sources from the protections of the Safe Drinking Water Act in order for oil and gas companies to inject wastewater into aquifers.](#) “The use of already depleted groundwater aquifers to dispose of oil field wastewater is a wasteful, unreasonable use of water. The State Board has a duty to nullify this wasteful, unreasonable use of our aquifers, and to recalibrate and rebalance the groundwater system in light of current and likely future droughts and other threats posed by climate change.”

[BACK TO TOP](#)

Interesting News around the Net

New Study Finds Surprising Culprit Drives Forest Fire Behavior

<https://www.newsdeeply.com/water/articles/2016/11/28/new-study-finds-surprising-culprit-drives-forest-fire-behavior>

Foraging Habitat Selection by California Spotted Owls After Fire

http://www.wildnatureinstitute.org/uploads/5/5/7/7/5577192/bond_et_al-2016-jwm-foraging_cso_socal.pdf

[BACK TO TOP](#)

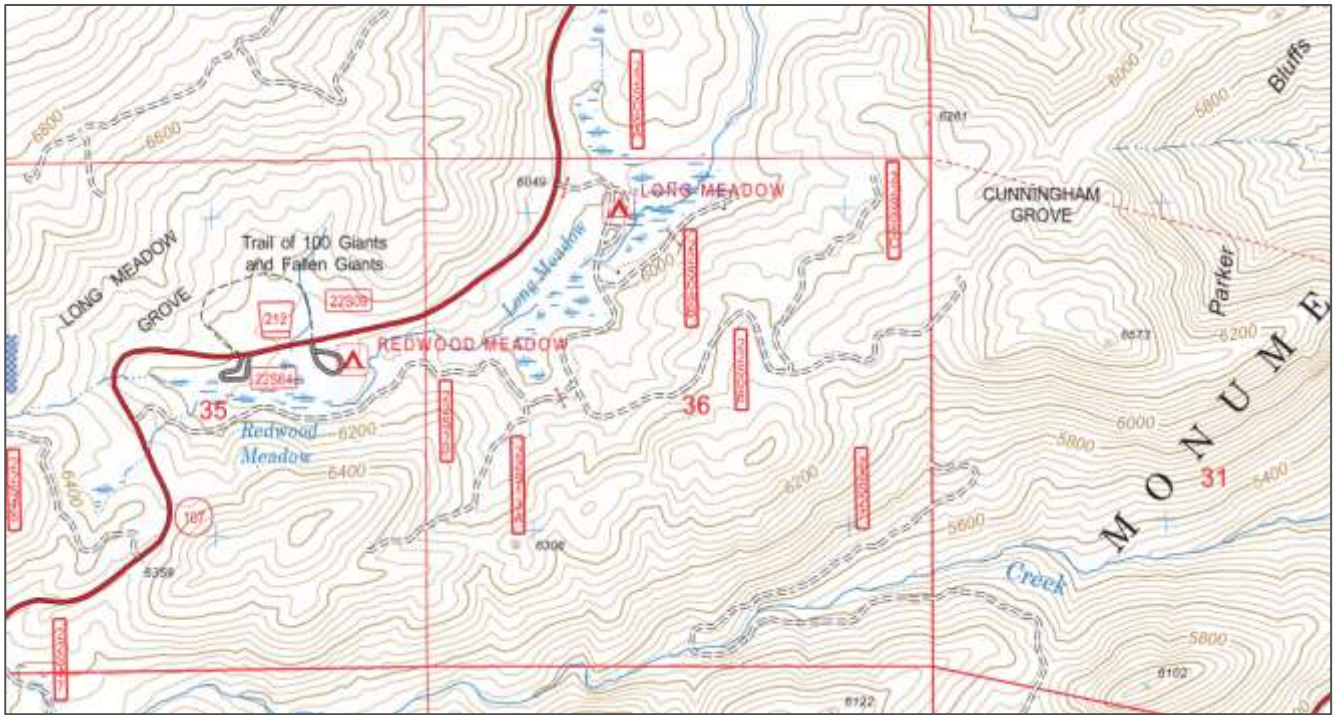
Mapping Giant Sequoia Groves

Giant Sequoias grow naturally only on the western slopes of the Sierra Nevada from Placer County to Tulare County. Sequoia ForestKeeper® loves all sequoias but our primary area of interest is the 40 or so groves found within the Giant Sequoia National Monument. Several groves have multiple land owners. The map will continue to evolve with information on all of the named Sequoia groves from the southernmost grove, Deer Creek Grove to the northernmost, Placer County Grove. <https://goo.gl/yoRvJc>

Most groves on the map are accompanied by descriptions and, if you click on a grove, you can get exact directions to the grove from your location. For example, here is the description for the Cunningham Grove.

Cunningham Grove - Giant Sequoia National Monument

This small 10 acre grove lies to the east of Long Meadow and was formerly named the Long Meadow Grove. It is one of the few in the Kern River drainage. There are only 5 large trees found here. Directions: take the Great Western Divide Highway to 22S08 and drive through Long Meadow. This grove is only accessible in summer by hiking to the following GPS point, 35.98321389N, -118.5686167W.



[BACK TO TOP](#)

Adopt a Sequoia

For only \$100 for a single tree and \$2,500 for a stand of sequoias* you can give to yourself or those you cherish a gift that will last for generations! All proceeds will be used to continue our work to protect and preserve the giant sequoias and their ecosystem.

****Adoption of sequoia does not indicate legal ownership***

Sequoia Adoption includes:

- A beautiful certificate of adoption
- GPS coordinates of your adopted sequoia
- A map so you can visit your tree or stand of trees
- A lovely 8x10 color photo of your tree or stand

CLICK HERE TO ADOPT A SEQUOIA -

http://www.sequoiaforestkeeper.org/adopt_a_sequoia.aspx – If you pay online, please add the \$5 processing fee so Sequoia ForestKeeper can expedite your gift.



[BACK TO TOP](#)

SFK's Internet Presence

Are you on [Facebook](#)? So is SFK. Is [Twitter](#) your style, SFK is there too! We have a presence on [Google Plus](#), [YouTube](#), [Pinterest](#), and [LinkedIn](#) as well. Follow us to learn about what is going on around the Southern Sierra

Nevada. We post information, including timber sale notices, special events, victories, photos, and other relevant information. We hope to see you on the net!



[BACK TO TOP](#)

Please Support Sequoia ForestKeeper®

Help us protect tomorrow's legacy by supporting SFK with a membership today. Our online donation page is found at this address: <https://www.networkforgood.org/donation/ExpressDonation.aspx?ORGID2=91-2154817>

Visit our [website](#), join us on [Facebook](#), follow us on [Twitter](#), view us on [YouTube](#), and most importantly [contact](#) us to take a walk with us in your forest.

Volunteers are needed to help clean the office, help with filing, help with constructing educational materials, help clean our adopted trail, help at public events, help document wildlife and plants for iNaturalist, and to help on nature walks. Please contact [Alison](#) if you would like to volunteer.

[BACK TO TOP](#)

Donate now to support our work

Sequoia ForestKeeper® · P.O. Box 2134 · Kernville, CA · 93238

We have sent this message to you because, as a member of Sequoia ForestKeeper® www.sequoiaforestkeeper.org one of your benefits is to receive periodic alerts and news. SFK respects your privacy, we do not share, rent, or sell your information! To stop receiving this e-newsletter from Sequoia ForestKeeper®, [click here to unsubscribe](#). Sent with recycled electrons... think about a tree before you print this email. alison@sequoiaforestkeeper.org