BEFORE THE CALIFORNIA FISH AND GAME COMMISSION

Petition to List the Mount Pinos Sooty Grouse (*Dendragapus fuliginosus howardi*)

as Threatened or Endangered under the California Endangered Species Act

Center for Biological Diversity
Los Padres ForestWatch
March 25, 2026

Notice of Petition

For action pursuant to Section 670.1, Title 14, California Code of Regulations (CCR) and Division 3, Chapter 1.5, Article 2 of the California Fish and Game Code (Sections 2070 *et seq*.) relating to listing and delisting endangered and threatened species of plants and animals.

SPECIES BEING PETITIONED: Mount Pinos Sooty Grouse (*Dendragapus fuliginosus howardi*)

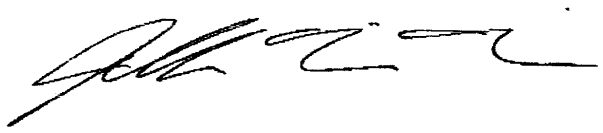
RECOMMENDED ACTION: Listing as Endangered or Threatened

The Center for Biological Diversity and Los Padres ForestWatch submit this petition to list the Mount Pinos sooty grouse (*Dendragapus fuliginosus howardi*) as threatened or endangered pursuant to the California Endangered Species Act (CA Fish and Game Code §§ 2050 et seq., "CESA"). This petition demonstrates that this grouse subspecies is eligible for and warrants listing under CESA based on the factors specified in the statute and implementing regulations. As detailed in this petition, the Mount Pinos sooty grouse has experienced a significant range reduction and faces multiple severe threats from logging, fire suppression and altered wildfire regimes, livestock grazing, and climate change. Listing as endangered or threatened under CESA clearly "may be warranted." We respectfully request the Department of Fish and Wildlife and the Fish and Game Commission to make such recommendations and findings pursuant to their respective authorities. Cal. Fish & Game Code §§ 2073.5 & 2074.2.

AUTHOR OF PETITION:

I hereby certify that, to the best of my knowledge, all statements made in this petition are true and complete.

Jeff Miller, Senior Conservation Advocate
Center for Biological Diversity



Date: March 25, 2026

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Executive Summary

The Mount Pinos sooty grouse is an imperiled subspecies at the southern end of sooty grouse distribution. It is highly endemic, restricted to a five-county region (Fresno, Tulare, Inyo, Kern, and Ventura) of Central and Southern California. The Mount Pinos sooty grouse historically inhabited the southern Sierra Nevada south of Kings Canyon, as well as "sky islands" of forested montane habitat to the south and west of the Sierra Nevada, including the Tehachapi Mountains, Piute Mountains, and the Frazier Mountain and Mount Pinos region. Today, the subspecies is considered extirpated from the southern sky islands portion of its range and is becoming increasingly rare in the southern Sierra Nevada.

Sooty grouse are positively associated with an abundance of large fir trees and logs, with past timber harvest the most likely cause of Mount Pinos sooty grouse extirpation south of the Kern Gap. The principal threats to the continued existence of the Mount Pinos sooty grouse include: habitat degradation caused by logging of large trees; wildfires exacerbated by fire suppression and climate change; post-fire salvage logging and other "hazard tree" operations; livestock grazing, particularly within high-elevation meadows; recreational impacts; and continued hunting within its already significantly reduced range.

To ensure the survival of the Mount Pinos sooty grouse, it needs dedicated monitoring and research, and protection of its habitat from logging, wildfire, hazard tree removal, livestock grazing, and motorized recreation.

Evaluation using modern genetic techniques is needed to confirm the subspecific status of sooty grouse in the Southern Sierra Nevada south of the Kings River.

Hunting of sooty grouse should be suspended within most of the presumed remaining and greatly receded Mount Pinos sooty grouse range in Tulare and Inyo Counties until the subspecies status is determined. Tulare, Inyo and Kern counties have not been significant for grouse hunting since the early 2000s: in Tulare County no grouse at all have been taken in most years from 2005-2021; and in Inyo County no grouse have been taken in most years from 2010-2021. Kern County is now closed to grouse hunting and no grouse have been taken there since 2000. During the 2022-2023 hunt season (the most recent year with published statistics), 37 hunters took 37 sooty grouse in Inyo County and 0 grouse were taken in Tulare County. If the Fish and Game Commission were to pause hunting in Tulare and Inyo counties during a status review and genetic evaluation for Mount Pinos sooty grouse, only 3% of the statewide sooty grouse take (37 of 1,140) would be affected by the pause; and only 2.8% of hunters (37 of 1,312) would be affected statewide.

Mount Pinos sooty grouse would also greatly benefit from potential reintroductions into its historic Southern California range, assuming measures are also taken to restore old-growth forest and meadow habitats, and to restrict land management practices which likely caused the extirpation of this species in the first instance.

This petition summarizes the natural history of the Mount Pinos sooty grouse, its population status, and the threats to this subspecies' habitat, and demonstrates that the Fish and Game Commission should list the Mount Pinos sooty grouse as threatened or endangered under the California Endangered Species Act.

1. INTRODUCTION

Mount Pinos sooty grouse are closely associated with upper-elevation mixed-conifer and fir forests between 6,000 and 10,000 feet (Bland 2008, p. 104). In early spring, these grouse congregate in open, mature forested stands near ridgelines, and males return to their springtime "hooting sites" which are used over generations. In late spring and summer, females brood their young in meadows and other mesic areas. In winter, the birds rely on dense, high-elevation conifer stands, where they subsist almost entirely on fir needles. (USFS 2019b, p. 40). The sooty grouse's high-elevation forest and meadow habitat each comprise only a small percentage of the southern Sierra Nevada and Transverse Mountains (USFS 2019b, p. 41-42).

Evaluation using modern genetic techniques is needed to confirm the subspecific status of extant sooty grouse in the Southern Sierra Nevada south of the Kings River. The Mount Pinos grouse subspecies is considered extirpated from the sky islands of South-Central California to the south of the Sierra Nevada, the first known regional extirpation of any sooty grouse (Bland 2013, p. 301; Zwickel and Bendell 2004, p. 23). Surveys conducted over the past century show that the putative Mount Pinos sooty grouse range has receded by approximately 100 miles (USFS 2019a, p. 39; USFS 2019b, p. 44). Recent reports suggest this northward decline is continuing, with sightings in Kern County becoming increasingly rare (Bland 2002).

Although some portions of the Mount Pinos sooty grouse's range are relatively well-protected within Sequoia and Kings Canyon National Parks, remaining habitat within lands administered by the U.S. Forest Service on the Inyo and Sequoia National Forests are not receiving meaningful protections (USFS 2019a, p. 41; USFS 2019b, p. 44). In addition, the California Department of Fish and Wildlife continues to allow hunting of sooty grouse within its remaining range of Fresno, Tulare and Inyo Counties (CDFW 2024).

Due to their reliance on large, mature trees, Mount Pinos sooty grouse are negatively impacted by management practices that impact those habitats, including large tree logging (Bland 2008, p. 104; Bland 2006, p. 2). Sooty grouse are also negatively impacted by livestock grazing within their meadow rearing habitat (Bland 2008, p. 105; Steel et al. 2012, p. 647; Vernon et al. 2022, p.2). These high-elevation forest and meadow habitats—already naturally rare across the southern Sierra and Transverse Ranges—are further threatened by climate change related stressors, as well as fire suppression and altered fire regimes, recreational use of habitat, and land development (USFS 2019a, p. 40-41; USFS 2019b, p. 43-44).

2. NATURAL HISTORY

2.1 Description

Related to the same family of birds as chickens and pheasants (Galliformes), sooty grouse are among the largest grouse species in North America. Measuring 15-21 inches in length, Mount Pinos sooty grouse are handsome birds, gray to bluish-gray in coloration, with distinctive red to yellowish-orange combs or "eyebrows" over their eyes. The females are mottled brown and cream and have a long dark tail. Males are sooty, colored dark gray and black. The tail feathers are black with a light gray band across the tips. Males have a yellow cervical apteria (the un-feathered skin on the sides of the neck) surrounded by white, reminiscent of a fried egg (Schroeder et al. 2009, p. 152).

The Mount Pinos subspecies of sooty grouse (*howardi*) can be distinguished from the Sierra Nevada subspecies to its north (*sierrae*) primarily by tail measurements and plumage characteristics (Dickey and van Rossum 1923, p. 168-69). Dickey and van Rossum (1923) described Mount Pinos sooty grouse as follows:

> Nearest to *Dendragapus* [*fuliginosus*] *sierrae*, but differing from that form in paler dorsal coloration, and in coarser and more conspicuous vermiculation and barring. Underparts darker, a brownish suffusion replacing the clearer gray of *sierrae*. The white median shafting and terminal pattern of the feathers of flanks and sides reduced in area and entirely lacking on anterior part of body, whereas in *sierrae* traces of this pattern extend forward to the shoulders. Wing slightly longer; tail decidedly longer and much more graduated, with terminal band averaging wider. Culmen, tarsus, and middle toe averaging slightly longer and decidedly heavier.

2.2 Taxonomy

Mount Pinos sooty grouse (*Dendragapus fuliginosus howardi*) is in the Kingdom Animalia, Phylum Chordata, Class Aves, Order Galliformes, and Family Phasianidae.

Over the past century, two main groups of blue grouse have been sometimes recognized as separate species and sometimes lumped together as one species: the more inland *D. obscurus* group, or dusky grouse, and the more coastal *D. fuliginosus* group, or sooty grouse (Hoffman 1956, p. 321). See Figure 1.

Figure 1: Estimated distribution of sooty and dusky grouse in North America (Schroeder 2004)

In 2004, these two blue grouse groups were reclassified as two separate species (Schroeder 2004, p. 4; Banks et al. 2006, p. 929). This reclassification was made based on genetic evidence, as well as differences in voice (hooting), behavior, and plumage characteristics (Barrowclough et al. 2004; Banks et al. 2006, p. 929). Morphological differences between dusky and sooty grouse include the color of the bare skin on the male apteria, the presence or absence of a distinct color band, the number of rectrices, and the color of the downy young. The two species also have different mating vocalizations and other courtship behaviors (Barrowclough et al. 2004, p. 1912).

Sooty grouse range encompasses far western North America and is comprised of four subspecies, ranging from the western slopes of the coastal mountains of British Columbia and southeastern Alaska (including most islands), southward through the Cascade-Coast mountains of Washington, Oregon, and California, and the Sierra Nevada southward into

the Transverse “sky island” ranges of Southern California, as well as disjunct populations in adjacent ranges.

Three of these four sooty grouse subspecies are found in California. From north to south, these subspecies are: *D. f. fulignosus* (“Oregon sooty grouse”), *D. f. sierrae* (“Sierra sooty grouse”) and *D. f. howardi* (“Mount Pinos sooty grouse”) (Grinnell and Miller 1944, p. 113-116; AOU 1957, p. 126; Johnsgard 2016, p. 35-36; NatureServe 2024). See Figure 2.

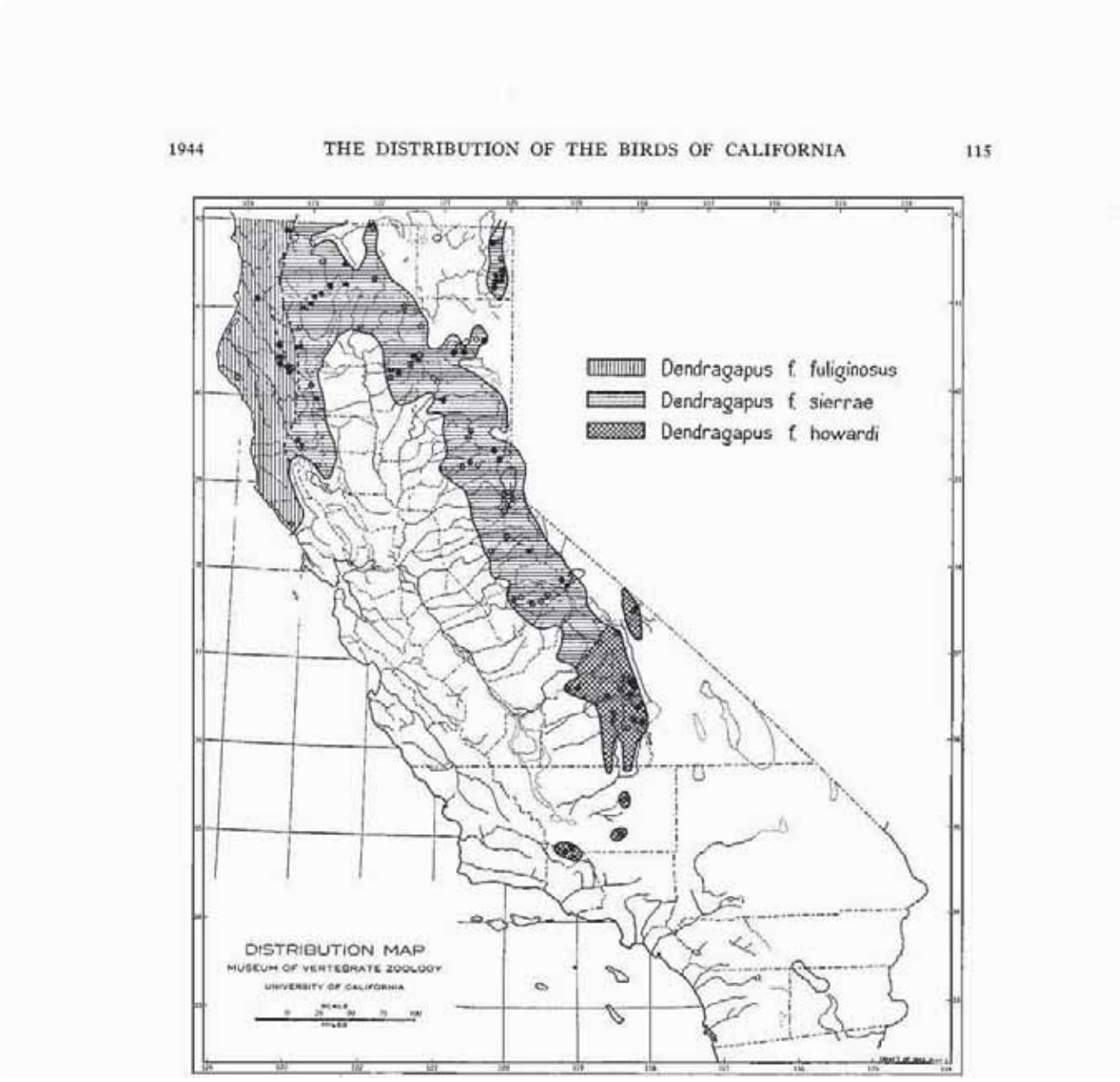

Figure 2: Distribution of sooty grouse subspecies in California (Grinnell and Miller 1944)

Primarily based on morphological differences, Dickey and van Rossum (1923, p. 168-69) recognized the Mount Pinos sooty grouse as a subspecies distinct from Sierra sooty grouse. These morphological differences have served as a primary basis for the distinct subspecies designations of Mount Pinos and Sierra sooty grouse (Grinnell and Miller 1944, p. 114).

Geographically, southern Sierra Nevada sooty grouse are separated from other *sierrae* sooty grouse by the Kings River Canyon in southern Fresno County, within Kings Canyon National Park, at about the 37th parallel of latitude (Grinnell and Miller 1944, p. 114-115).

Although Barrowclough et al. (2004, p. 1917-1918) did not examine the genetic characteristics of *D. f. sierrae* or *D. f. howardi*, the authors found that the Columbia River valley "may have acted as a historical [though not complete] barrier to gene flow," to sooty grouse in that region. Kings Canyon may serve as a similar barrier for sooty grouse and has notably been recognized as a species or subspecies barrier for other species, including the yellow-legged frog (Byrne et al. 2024, p. 600) and northern alligator lizard (Leaché et al. 2024, p. 3, 12). As explained in Leaché (2024, p. 12), "this part of the Sierra Nevada experienced multiple, dramatic glaciation events that would have displaced and segregated populations," and "these primary breaks are further structured by major river barriers in the northern and central Sierra Nevada," including the break at Kings Canyon. While these barriers would generally have different significance for avian species, Barrowclough (2004, p. 1918) noted that "it is perhaps not surprising that a large, relatively sedentary bird with modest population density would have substantial genetic structure across a large geographical area involving a fragmented distribution."

Unpublished mitochondrial DNA ("mtDNA") data may suggest that the sooty grouse population in the southern Sierra represents *sierrae* rather than *howardi*, and the population on the isolated montane areas south of the Sierra Nevada, including Mount Pinos, may have represented a distinct (and possibly extinct) species (NatureServe 2024). Reviewers, however, rejected this manuscript for publication for two main reasons: the number of samples from the extinct population was too small, and the mtDNA samples needed to be supported with evidence from nuclear DNA. The subspecies' primary expert (J.D. Bland) recommends that because the use of mtDNA to distinguish 'phylogenetic' species is not universally accepted, the currently recognized taxonomy should be used for planning purposes until studies of nuclear DNA confirm or refute findings of the unpublished mtDNA study (J.D. Bland, personal communication, 2024). An analysis of population genetic structure that utilizes both mtDNA and microsatellite loci in tandem is thus essential to resolve the current taxonomic uncertainty (Davis et al. 2021).

2.3 Biology

Feeding

Sooty grouse are primarily vegetarian. In winter, sooty grouse eat the needles of conifers, along with buds and twigs, which they pluck and prune with their strong bills, usually while perched in the middle or upper part of the tree (Cornell 2025). Their spring and summer diet includes more insects, along with conifer needles, the leaves and flowers of herbs, and the leaves, flowers, and berries of shrubs (Zwickel and Bendell 2004, p. 120). Older chicks and females may also eat large numbers of insects if available, including ants, beetles, grasshoppers, and spittle bugs, sometimes gleaned from vegetation but most often pecked from the ground (Bland 2008, p. 104-105; Zwickel and Bendell 2004, p. 121; Cornell 2025). Hens with broods seek open, mesic sites with lush vegetation and an abundance of insects for chicks (Zwickel and Bendell 2004, p. 121). Sooty grouse tend to forage in the early morning and late afternoon. Like other grouse, sooty grouse eat grit or tiny stones, which they often collect along road edges, to help grind up food in the gizzard (Cornell 2025).

Breeding

The onset of the springtime hooting and courtship period for sooty grouse (typically in April and early May) has been correlated with the persistence of the snow cover (Hoffman 1956, p. 323). During the breeding season, male sooty grouse display from trees to attract females, performing short fluttering flights out from a tree, with much wing noise, and give up to 6 very low-pitched, loud hoots that carry fairly far through the forest. These “hoot” notes can be heard up to 2 kilometers away. Male sooty grouse hooting has a deeply resonant sound that has been described as evoking a “boy-with-the empty-cider-jug.” Display perches can be more than 100 feet high in a tree. Male Mount Pinos sooty grouse have a preference for “massive” old growth-trees as song-posts, surrounded by a patchy tree canopy, as well as dead-and-down wood (Bland 2002, p. 12; Zwickel and Bendell 2004, p. 178). In addition, at least a few fir or pine trees with diameters >100 cm are normally present, often in tight clusters of three to six trees (Bland 2008, p. 104).

Unlike other North American grouse that participate in communal courtship displays, adult male sooty grouse are strongly territorial when hooting (Hoffman 1956, p. 327; Zwickel and Bendell 2004, p. 11). Mount Pinos sooty grouse “hooting sites” or “spring activity centers” are traditional and returned to year after year, generation after generation (USFS 2019b, p. 40). This behavioral difference may be correlated with different habitat preferences. Unlike

sage-grouse, which are found primarily in open country, sooty grouse typically perform the courtship display in denser cover, usually from a tree or log (Hoffman 1956, p. 327). Although the more northern Sierra Nevada subspecies has been observed hooting in shrubland vegetation, all records of hooting Mount Pinos sooty grouse are from coniferous forest (Bland 2008, p. 104).

Females attracted by male displays often reveal themselves with a soft cackle, which causes the male to descend from the song-post to the ground. There he puffs up his plumage, fans his tail, droops his wings, bobs his head, and struts around the female, calling and exposing yellowish sacs at the side of his neck. Males are probably polygynous, meaning they mate with more than one female; it's not known whether females also have multiple mates. Males use threat postures, growling calls, and chase flights when confronting rivals that venture too close to their display area, and they sometimes engage in physical combat. After mating, males are sometimes aggressive toward females, occasionally attacking them. Females may also chase and peck other females.

After courtship and mating, males have no more involvement with the female or young. Females select the nest site, construct the nest, incubate the eggs, and raise the young to fledging. Females build ground nests, usually well away from males' spring territories and usually away from other females' nests. Most nests have overhead cover such as shrubbery. The cover may be as simple as twigs and needles or complete cover by logs, rocks, or vegetation (Zwickel and Bendell 2004, p. 98). For the nest, females make a shallow scrape about 6.7 inches across and 1.8 inches deep (Cornell 2025). They line the scrape with materials close by such as leaves, twigs, needles, moss, bark, ferns, rotten wood, and a few feathers. The female lays 5 to 10 eggs on average and incubates them by herself for 25 to 28 days. Eggs are pale buff, speckled with brown.

After hatching, chicks are downy and able to follow their mother to feed within a day and can fly in just over a week. Females brood their young in meadows and other mesic areas in the late spring and summer through fall (Zwickel and Bendell 2004, p. 43). After the young have grown to adult size, some disperse, but others may remain with the female. In winter, small groups (probably families) often forage and roost in a set of trees for several weeks before moving on.

Movement

Sooty grouse in general are only short-distance migrants (Zwickel and Bendell 2005). Most sooty grouse populations follow an "inverted" vertical migration between summer and

winter, moving from their relatively open breeding areas into montane conifer forests, usually at higher elevations (Zwickel and Bendell 2004, p. 185). Such autumnal migration is believed to be more gradual than spring, with the well-grown young and adults walking to the tops of hills and ridges (Zwickel and Bendell 2004, p. 186). However, the Mount Pinos sooty grouse is probably much less migratory than northern populations, since suitable habitat occurs in relatively narrow belts along the two main ranges of the southern Sierra Nevada (Great Western Divide and main Sierra Nevada) and around the peaks of the isolated sky islands, so substantial seasonal altitudinal migration is unlikely (Bland 2013). Seasonal movements of Mount Pinos sooty grouse are probably similar to those of Sierra sooty grouse, which on the western slope winter and breed in one general area (Bland and Gardner 2013). The persistence of wintertime droppings in males' breeding territories at southern Sierran sites such as Sunday Peak and Mineral King suggests there is little seasonal migration in the southern Sierra Nevada (Zwickel and Bendell 2004, p. 136; Bland (2008, p. 105; Bland 2013).

Sooty grouse become more social in the winter, forming small flocks (Zwickel and Bendell 2004, p. 175). During this time, sooty grouse ascend conifer trees of several kinds and remain in these trees most of the time, subsisting almost exclusively on needles within dense conifer stands until the melting of snow allows them to obtain more food from the ground (Zwickel and Bendell 2004, p. 120; Hoffman 1956, p. 325).

Sooty grouse flying is relatively uncommon and usually involves short flights into or out of trees or bushes for feeding or roosting, in response to intruders, or in escape. Sooty grouse are "strong flyers over short distances, skillfully maneuvering among trees in forested areas" (Zwickel and Bendell 2004, p. 149).

2.4 Habitat

Sooty grouse generally inhabit coniferous forests in mostly mountainous areas, up almost to treeline. Most breeding habitats are open forests and both old-growth forests with gaps as well as regenerating burned areas attract sooty grouse, so long as there are plenty of grasses and shrubs. Sooty grouse tend not to use closed forests, high alpine, or shrub-steppe habitats. The Mount Pinos sooty grouse occupies different vegetation types according to season (Bland 2008, p. 104). In the spring, the bird's habitat usually consists of open, mature pine-fir forest with clusters of large trees, on or near ridges between 6,000 and 10,000 feet (Bland 2008, p. 104).

Specific Mount Pinos sooty grouse "key ecological conditions" include the Montane, Upper Montane Zone, and Subalpine Zones, which include a mosaic of conifer forest, meadows, and montane chapparal. On the western slopes red fir (*Abies magnifica*), Jeffrey pine (*Pinus jeffreyi*), and lodgepole pine (*Pinus contorta*) are the dominant forest species. In the far southern Sierra Nevada, white fir (*Abies concolor*) replaces red fir, and western white pine (*Pinus monticola*) is also found on more productive sites (USFS 2019b, p. 41).

Grinnell and Miller (1944) described the forest habitat of Mount Pinos sooty grouse as chiefly slopes clothed sparsely with white fir (aka silver fir) but also other coniferous trees such as Jeffrey pine. Hooting habitat usually consists of open, mature *Abies*/*Pinus* forest (Shuford and Gardali 2008). Bland (2002) located breeding Mount Pinos sooty grouse on Sunday Peak in the Greenhorn Mountains in mature red fir and sugar pine (*Pinus lambertiana*) forest, with patchy understory of chinquapin (*Chrysolepis chrysophylla*), whitethorn (*Ceanothus cordulatus*), and chokecherry (*Prunus virginiana*). Bland (2013) considered potential Mount Pinos sooty grouse breeding habitat in the sky island regions of Kern and Ventura counties to be mature fir, mixed conifer-fir, mixed conifer-pine, ponderosa pine (*Pinus ponderosa*)–fir, and sugar pine forests. Bland (2006) noted that the dominant tree species at 10 sooty grouse hooting sites in Pinecrest, California, north of the Mount Pinos sooty grouse range and within the Stanislaus National Forest, were red fir, white fir, and Jeffrey pine. Less frequent canopy species near Pinecrest include lodgepole pine, sugar pine, mountain hemlock (*Tsuga mertensiana*), western white pine, and Sierra juniper (*Juniperus occidentalis*).

Subalpine Zone and Alpine Zone forest types make up less than 5% of the Sierra Nevada south of Kings Canyon and may provide refugia as climate change related stressors push species like Mount Pinos sooty grouse "to the end of their range" (USFS 2019b, p. 44).

3. RANGE AND STATUS

3.1 Range

Southernmost of the four sooty grouse subspecies, the Mount Pinos sooty grouse is a highly endemic subspecies that historically ranged from Kings Canyon in the southern Sierra Nevada (approximately latitude 37°) southward (in Fresno, Tulare, and Inyo counties), and into the "sky island" Tehachapi Mountains, Piute Mountains, and the Frazier Mountain and Mount Pinos regions of Kern and Ventura counties (Grinnell and Miller 1944, p. 115). See Figure 3.

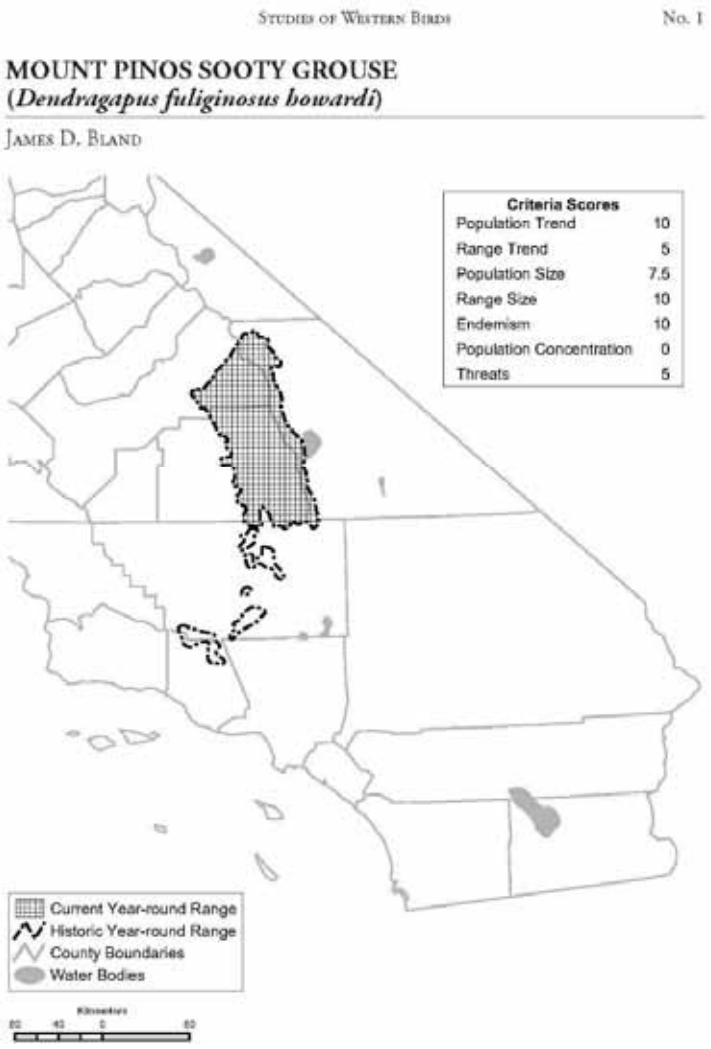

Figure 3: 2008 range of Mount Pinos sooty grouse (Shuford and Gardali 2008, p. 102)

Range Contraction

The Mount Pinos sooty grouse range at the southern extent has receded northward by approximately 100 miles (Bland 2002, p. 1-2; USFS 2019b, p. 40). This northward decline is continuing, with sightings in Kern County becoming increasingly rare: "South of Kern Gap, where its habitat is limited to isolated mountaintops in the extreme southern Sierra Nevada and northern Transverse Ranges—sky islands—it is considered rare or possibly extinct" (Bland 2013, p. 294). Mount Pinos sooty grouse no longer breeds in more than 10% of its historic range (Shuford and Gardali 2008).

Petitioners mapped all recent (2005-2025) sooty grouse sightings reported on eBird within the presumed Mount Pinos sooty grouse range, confirming that sooty grouse are no longer observed in the sky islands of the northern Transverse Ranges. Sooty grouse sightings in Kern County are also increasingly rare, and only northwest of Isabella Lake. See Figure 4.

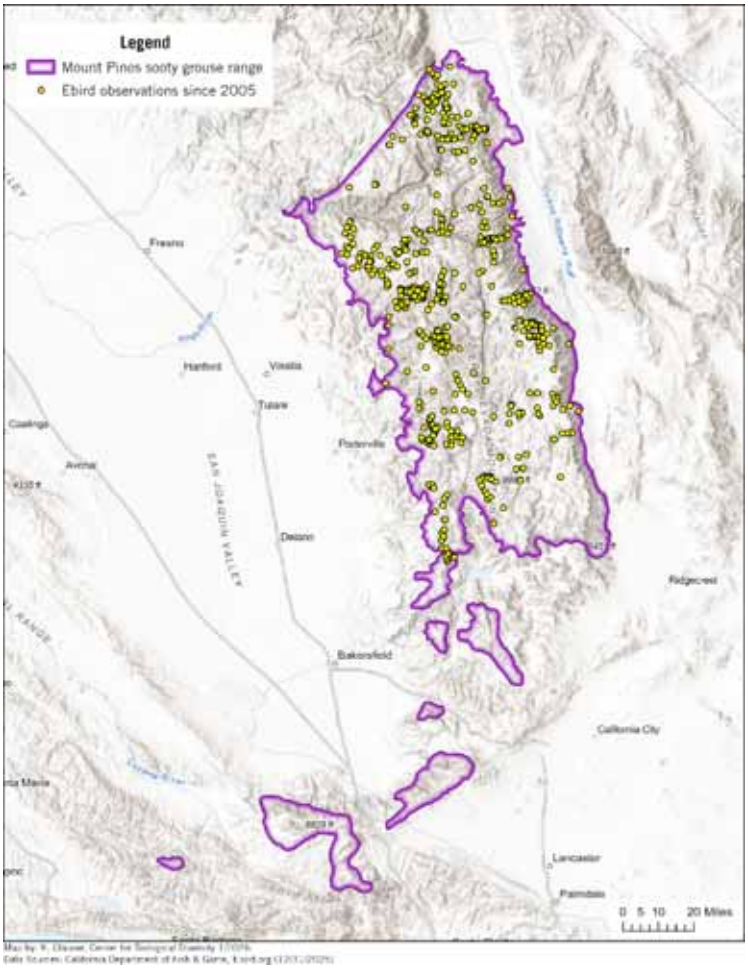

Figure 4: eBird observation of sooty grouse 2005-2025 in the Mount Pinos sooty grouse range

3.2 Population Abundance and Trends

According to the North American Breeding Bird Survey, the overall population of sooty grouse range-wide (not just Mount Pinos sooty grouse) declined by about 1.8% per year between 1968 and 2015, resulting in a cumulative loss of 57% over that period (NatureServe 2024; Cornell 2025). If these current decline rates continue, the overall species will have lost another half of its population by 2088, yet sooty grouse populations continue to be characterized as "secure."

Grinnell and Miller (1944) considered the Mount Pinos subspecies "locally common" in suitable parts of the main southern Sierra Nevada but "sparse" on the montane islands at the southwestern limit of its range. Specimens and eggs collected in the early 20th century confirmed sooty grouse in the Piute Mountains, Tehachapi Mountains, the Mount Pinos/Mount Able (Cerro Noroestre) area, and Frazier Mountain (Willet 1933; Grinnell and Miller 1944). Most southern records originated from Mount Pinos, where in 1928 the egg collector J. R. Pemberton estimated there to be no more than 50 pairs (Shuford and Gardali 2008, citing WFVZ egg data slip). Grinnell and Miller (1944) indicated that sooty grouse had become "very scarce" on Mount Pinos by the early 1940s.

Bland (1993) encountered only 14 hooting groups along 104 km of line transects in presumed Mount Pinos sooty grouse habitat in the southern Sierra Nevada. The number of males in these groups was five or less. In Sequoia National Park and Sequoia National Forest, abundances of Mount Pinos sooty grouse along line transects were 1.5 and 0.5 hooting males per km, respectively (Bland 1993). Bland (2008, p. 103) characterized observed densities in 1992 at the northern extent of the subspecies' range as the highest of sooty grouse densities anywhere in California (3 males per km^2 at Big Baldy Ridge, Sequoia National Park), although those densities are just a fraction of observed densities in more northern sooty grouse subspecies in the Pacific Northwest, where densities can exceed 130 males per km^2 (Bendell and Zwickel 1984). Bland (2008, p. 104) further described Mount Pinos sooty grouse as "common" in the eastern Sierra in Inyo County, while noting that to the west in Tulare County, "its abundance drops off rapidly south of about 36° N latitude."

Steel et al. (2012) found that sooty grouse was a fairly common year-round resident and regular breeder at Sequoia and Kings Canyon National Parks, based on previous reports (Beedy and Granholm 1985; Warner and San Miguel 1991; Gaines 1992; Siegel and DeSante 2002; Siegel and Wilkerson 2005; Siegel et al. 2009, 2010; Stock and Espinoza

2009) and National Park Service surveys at count stations. The Institute for Bird Populations conducted land bird inventories of Sequoia and Kings Canyon National Parks during 2003-2004 (Siegel and Wilkerson 2005), with 1,732 point-count stations surveyed. Steel et al. (2012) detected 56 individual sooty grouse at 55 count stations in Sequoia and Kings Canyon National Parks, with a density of 0.01-0.03 birds/ha.

Neither the Sequoia nor the Inyo National Forest have information on abundance or population trend for this subspecies in the national forests (USFS 2019a,b).

Though known to have lost at least 10% of their breeding range, there are currently no reliable estimates of the overall abundance or population trend of Mount Pinos sooty grouse. Steel et al. (2012) caution that regional analysis of Breeding Bird Survey data (Sauer et al. 2008) for sooty grouse may be unreliable due to small sample sizes, which may be prone to spurious results when relative abundance is low (less than 1.0 birds per route) or the sample is based on fewer than 14 routes over the long-term.

A rough guestimate of Mount Pinos sooty grouse numbers could be made by extrapolating the densities recorded by Steel et al. (2012) throughout Sequoia and Kings Canyon National Parks (0.01-0.03 birds/ha, which were determined using a large number (1,732) of point-count stations throughout both National Parks) throughout the amount of modeled suitable habitat for sooty grouse within the current Mount Pinos sooty grouse range. We did not try to extrapolate the densities of hooting males (3 males/km^2) recorded by Bland (2008) throughout the current Mount Pinos sooty grouse range, because those densities were observed at just at one location in Sequoia National Park rather than throughout both National Parks as with Steele et al (2012), and because Bland (2008) noted that the high densities might be because in the Sierra Nevada males tend to congregate in “hooting groups” during spring, and that these hooting groups appear to be small and widely dispersed, and thus not a good candidate for extrapolating those densities.

CDFW (2025d) has modeled habitat suitability in California for Mount Pinos sooty grouse based on reproduction, cover, and feeding habitat needs for the species and the California Wildlife Habitat Relationships information system. There are some issues with the assumptions and accuracy of this modeling. The current year-round range for Mount Pinos sooty grouse (based on Bland 2008 and excluding portions of the range where the subspecies is extirpated) is roughly 2.66 million acres. Within that range, CDFW (2025d) modeled 565,125 acres of high suitability and 582,935 acres of medium suitability sooty grouse predicted habitat.

Assuming occupancy of only high suitability modeled habitat, and extrapolating throughout the subspecies range at the Steel et al. (2012) observed densities, would give an estimate of 2,287-6,861 grouse.[1] Assuming occupancy of both medium as well as high suitability modeled habitat, extrapolating the Steel et al. (2012) observed densities would give an estimate of 4,646-13,938 grouse.[2] Another important caveat is that the National Park lands where Steel et al. (2012) observed these densities are managed differently than the remainder of the Mount Pinos sooty grouse range, which is managed primarily by the U.S. Forest Service and where extractive activities such as logging, hunting, and livestock grazing are allowed, likely significantly reducing the amount and quality of suitable sooty grouse mature forest and wet meadow habitats on National Forest and Sequoia National Monument lands.

There had previously been no major extirpations of dusky grouse and sooty grouse from their historic range (Zwickel and Bendell 2004, p. 23), but the southern end of the Mount Pinos sooty grouse's distribution an exception (Bland 2013). The subspecies was considered extremely rare in the Tehachapi, Mount Pinos, and Frazier Mountain areas in the 1950s through the 1970s, with only sporadic sightings reported (Zwickel and Bendell 2004, p.23). Several unconfirmed sightings in the early 1990s are the last evidence of the subspecies in this area (Zwickel and Bendell 2004, p. 23; Lentz 1993, p. 213).

Surveys indicate that the southern extent of sooty grouse range has receded northward by approximately 100 miles (Bland 2002, p. 1-2; USFS 2019b, p. 44). Bland (2002) conducted surveys for sooty grouse throughout Kern County and adjoining areas of Tulare and Ventura counties, focusing on territorial males during peak hooting season. Bland (2002) surveyed montane islands that were known to previously be occupied by sooty grouse in the early 1900s, but where there had been no conclusive sightings for 30-60 years, such as Bear Mountain, Tehachapi Mountains, Piute Mountains, Greenhorn Mountains, Breckenridge Mountain, and the Mount Pinos area. Bland (2002) encountered sooty grouse at only one location, Sunday Peak in the Greenhorn Mountains, a southern extension of the Sierra Nevada; no sooty grouse were found in the habitat islands further south and west. By the early 1990s, the Mount Pinos sooty grouse appeared to be extirpated from the sky islands of South-Central California (Bland 2013). The results of these surveys suggest Mount Pinos sooty grouse no longer breeds in more than 10% of its historic range (Shuford and Gardali 2008).

[1] 565,125 acres (= 228,698 hectares) x 0.01-0.03 birds/hectare = 2,287-6,861 birds
[2] 1,148,060 acres (= 464,603 hectares) x 0.01-0.03 birds/hectare = 4,646-13,938 birds

Due to its apparent extirpation south of the Sierra Nevada, the remaining range of Mount Pinos sooty grouse is largely comprised of federal lands administered by the U.S. Forest Service (Inyo and Sequoia National Forests and Giant Sequoia National Monument) and National Park Service (Sequoia and Kings Canyon National Parks).

4. THREATS

The California Bird Species of Special Concern designation for the Mount Pinos sooty grouse states that the principal threat is "probably habitat degradation caused by incompatible timber harvest, fire suppression, and livestock grazing practices" (Bland 2008, p. 105). The National Park Service also recognizes these same primary threats of logging, fire suppression and livestock grazing (Steel et al. 2012, p. 647). In identifying the Mount Pinos sooty grouse as a "species of special concern" on the Inyo and Sequoia National Forests, the U.S. Forest Service states that threats include "hunting, incompatible timber harvest, fire suppression and altered fire regime, livestock grazing, land development, recreational use of habitat, and climate change" (USFS 2019a, p. 38; USFS 2019b, p. 39).

4.1 Logging

Mount Pinos sooty grouse forested habitat, including spring hooting sites and winter roosting habitat, is severely threatened by timber harvest, including post-fire salvage logging, logging in response to insect outbreaks, and other "hazard tree removal."

Logging disrupts the "predator-cover complex" habitat for grouse, heightening their risk of predation as they navigate through an altered mosaic of habitats (Bland 2013, p. 303). Timber harvest is also negatively associated with habitat occupancy by breeding male sooty grouse in the southern Sierra, and the large trees they select for territorial song posts (~1 m in diameter at breast height) have been heavily cut. As summarized by Bland (2017, p. 42-43):

> Studies I have conducted over the past 24 years (beginning in Sequoia National Park) show the Sierra Nevada subspecies ... is closely associated with old forest. Breeding males choose trees that average 1 m in diameter as songposts, and are positively associated with the abundance of large trees and logs, and negatively associated with past timber harvest ... Much Sooty Grouse habitat has been degraded on Forest Service and private land by removing the largest trees; the most likely cause of Sooty Grouse extirpation south of the Kern Gap.

Timber harvest that results in even-aged stands or evenly distributed trees may be detrimental to Mount Pinos sooty grouse, as may be selective harvest of large, clumped conifers at the perimeter of forest openings (Shuford and Gardali 2008). Bland's 2006 study

of suitable habitat for Sierra sooty grouse found that hooting sites do not generally benefit from timber harvest, contrary to some prevailing presumptions by land managers. Bland (1993) found that the number of sooty grouse males was lower on national forest lands subjected to timber harvest than on nearby unharvested national park lands at sites sampled throughout the Sierra Nevada.

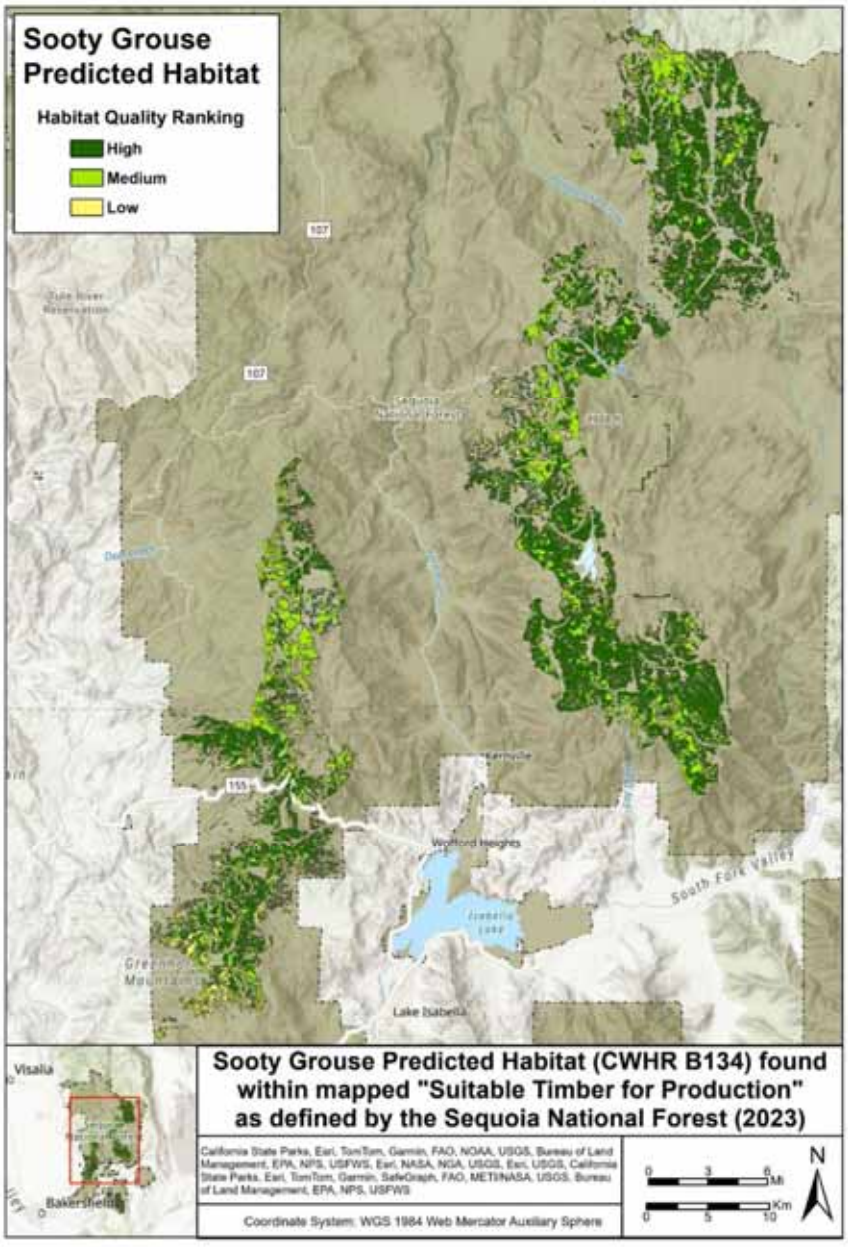

Figure 5: Modeled sooty grouse habitat within timber harvest "suitability" areas in the Sequoia National Forest (from USFS 2023)

The Forest Service's recently revised (2023) land management plan for the Sequoia National Forest continues to permit extensive timber harvest within tens of thousands of acres in the heart of the Mount Pinos sooty grouse's remaining range on the Kern Plateau. This plan (excluding Giant Sequoia National Monument, which has its own management plan) identifies 79,594 acres as suitable for timber production (USFS 2023, p. 174; Figure 25, p.175). See Figure 5. The Giant Sequoia National Monument Plan also designates approximately 23% of the 328,315 acres of National Forest land within the Monument as suitable for mechanical tree removal (USFS 2012a, at p. 80). The potential impacts of logging on Mount Pinos sooty grouse are not addressed in this Monument plan.

Timber harvest is generally prohibited within Sequoia and Kings Canyon National Park and there are very limited areas of the Inyo National Forest (near Cottonwood Creek) within the Mount Pinos sooty grouse range identified as suitable for timber production under the Forest's 2019 land management plan (USFS 2019c, Figure 21 at p. 158, p. 160).

The impacts of large tree mortality from wildfire are being further exacerbated by salvage, sanitation, and hazard tree logging of impacted areas. The recently revised Inyo and Sequoia land management plans (USFS 2023, p. 181; USFS 2019c, p. 164) both broadly allow for logging in areas not designated as suitable for timber production for a variety of reasons:

> In addition to scheduled forest management, management may also occur in response to disturbance events (such as wildfire, windthrow, insects, parasites, or pathogen-related decline). Other harvest methods will likely apply to these specific conditions and project objectives. For example, after wildfire, and especially on suitable land, salvage harvests may be implemented to recover the economic value of dead and dying trees and to reduce the future fuel environment. Other events, such as windthrow and insect- and pathogen-related infestations, may lead to salvage or sanitation harvests, to recover economic value and improve residual stand health.
>
> Safety considerations, although not regarded as a component of a harvest system, will likely lead to the harvest of dead and dying trees, as well as living trees deemed a risk, that may fall along roads and other places where people or property are threatened. This action, commonly referred to as hazard tree removal, or tree risk reduction, may be used extensively along roads and trails within wildfire areas.

The Sequoia National Forest, and to a lesser extent the Inyo National Forest, continue to plan, authorize, and implement timber harvesting, including commercial harvest, and snag removal, post-fire or beetle-kill events, which will negatively impact Mount Pinos sooty grouse habitat.

Loss of forested habitat on private lands has also impacted Mount Pinos sooty grouse habitat. Bland and White (2009) noted that on Tejon Ranch, the Tejon Ranch Company "had initiated commercial timber harvest" in the 1980s and observed numerous examples of logging, including clearcuts. The authors also observed fir stands on Tejon Ranch that had been paint-marked and readied for harvest" (Bland and White 2009, p. 3). Bland (2002, p. 2) further noted that large swaths of private land in the Tehachapi Mountains had been harvested and converted into pine plantations, making that habitat no longer suitable for grouse.

4.2 Fire Suppression and Altered Wildfire Regimes

Decades of fire suppression in forests of the western United States has led to greater canopy cover from small and medium trees, higher biomass density, and more surface fuels (Parks and Abatzoglou 2020, p. 4), thus resulting in an elevated wildfire risk to Mount Pinos sooty grouse forested habitat. Historically, the mean fire return interval within the Sierra Nevada was 11–16 years with a mean fire size between 200–400 ha (494–988 acres) and with 5-15% of that area burning at high severity (Safford and Stevens 2017, p. 7). Fire suppression over the last 100 years, combined with extended droughts, has led to increased fuel loads and changes in fire behavior, with larger, more severe fires, and longer wildfire seasons in recent years, as documented in both Sierra Nevada and Southern California Transverse Mountain ranges (Safford and Stevens 2017, pp. v–vi; Nigro and Molinari 2019, p. 20). The mean size of fires in the Sierra Nevada over the past 30 years has increased to approximately 1,400 ha (3,459 acres) with 30-35% of the burn area at high severity (Safford and Stevens 2017, p. 8).

The impacts of larger and more intense wildfires resulting from fire suppression continue to drive the contraction of the southern extent of Mount Pinos sooty grouse range. For example, Bland (2002) conducted Mount Pinos sooty grouse surveys at the southern extent of the species' range over a 14-day period. These surveys covered an estimated 83 miles of habitat within areas of Bear Mountain, the Tehachapi Mountains, the Piute Mountains, the Greenhorn Mountains, Breckenridge Mountain, and the Mount Pinos area in April and early May. These mountains form an archipelago of montane habitats that stretches across Kern County from the main axis of the Sierra Nevada Mountains to Ventura County in the west.

During these 2002 surveys, Mount Pinos sooty grouse were encountered at only one location: Sunday Peak in the Greenhorn Mountains (Bland 2002). At the time, Sunday Peak was "probably the largest remaining patch of old-growth mixed-conifer forest left in Kern County." Surveys there observed eight territorial males occupying mature mixed-conifer forest between 7,200 and 7,700 feet in elevation. All "the birds were perched 60 to 80 ft high in massive (>4 ft diameter) fir and pine trees," surrounded by a "general abundance of large dead-and-down wood on the ground" (Bland 2002, p. 1-2).

Based on these 2002 surveys, Sunday Peak (as well as Sherman Peak in southeastern Kern County) has been described as the southernmost known breeding location for Mount Pinos sooty grouse (Bland 2008, p. 104; USFS 2019b, p. 40). In August 2016, however, the old-growth forest of Sunday Peak, harboring the relatively dense, southernmost population of Mount Pinos sooty grouse, was burned in the Cedar Fire. There have been no reported sightings of the species on eBird in this vicinity subsequent to this fire.

4.3 Livestock Grazing

Meadow habitats and other mesic areas that female sooty grouse and their young are reliant on during late spring and summer through fall are threatened by livestock grazing that destroys and degrades this habitat.

Livestock grazing authorized by the USFS currently occurs on nearly 1.2 million acres of the Mount Pinos sooty grouse range. USFS grazing allotments total 988,704 acres throughout the Sequoia and Inyo National Forests and in portions of the Sierra National Forest within the current Mount Pinos sooty grouse range, as well as portions of the Los Padres National Forest within the Mount Pinos sooty grouse former range. The USFS also allows commercial grazing on an additional 210,033 acres (two-thirds) of the Giant Sequoia National Monument, including within meadow habitats for Mount Pinos sooty grouse (USFS 2012a, Chapter 2). The USBLM also has 138,516 acres of grazing allotments within the Mount Pinos sooty grouse range. See Figure 6 for a map of current USFS and USBLM grazing allotments within the Mount Pinos sooty grouse range.

Although current stocking levels on Sierra Nevada National Forests have decreased since the 1980s, livestock continues to have predominantly negative effects for all impacted resource values (Vernon et al. 2022; Beschta et al. 2013, p. 479). These negative effects suggest that "achieving functional ecological condition in Sierra meadows that are currently used for livestock grazing may be challenging" (Vernon et al. 2022, p.2).

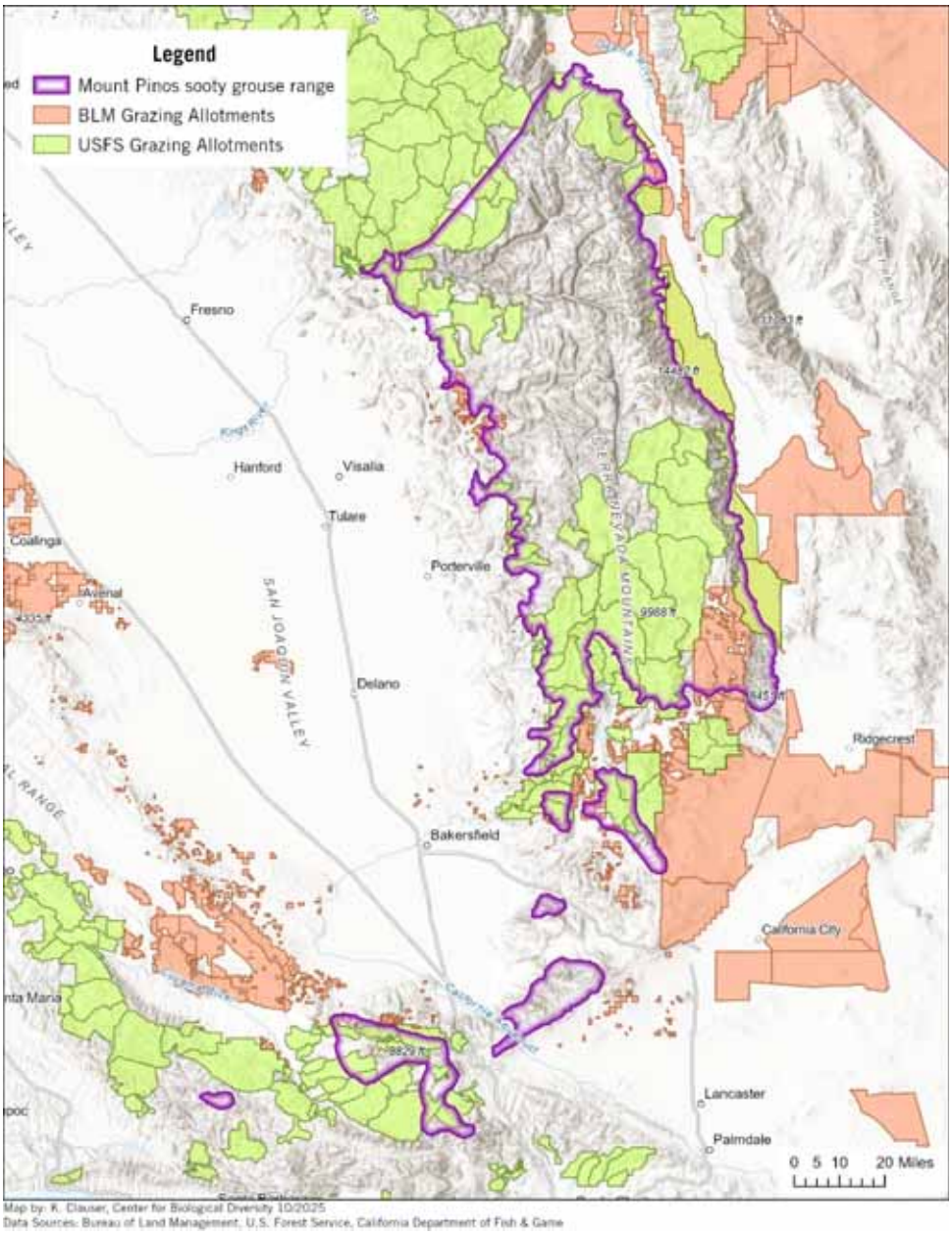

Figure 6: Current USFS and USBLM grazing allotments within the Mount Pinos sooty grouse range

Livestock grazing has specifically been recognized as degrading Mount Pinos sooty grouse food availability and cover at brood-rearing meadows (Bland 2008, p. 105). Zwickel (1972) found a higher proportion of successful grouse hen parents on ungrazed areas as opposed to adjacent ungrazed areas. Bland (2002, p. 2) noted that most potential brood-rearing meadows surveyed on the Sequoia National Forest "were visibly degraded," noting that "there were the usual signs of livestock grazing."

The Center for Biological Diversity (CBD) documented widespread damage to meadow habitats from livestock grazing in Sierra and Inyo National Forests (CBD 2025b). CBD (2025b) evaluated cattle impacts in 2023 and 2024 on two grazing allotments within the Mount Pinos sooty grouse range, the Mulkey C&H allotment in Inyo National Forest and the Collins allotment in Sierra National Forest. CBD (2025d) documented moderate to significant cattle damage in portions of Mulkey Meadows and 303d listed impaired water quality in Horseshoe Meadow, within the Mulkey C&H allotment; and significant cattle damage to native habitats in four locations within the Collins allotment. See Figure 7.

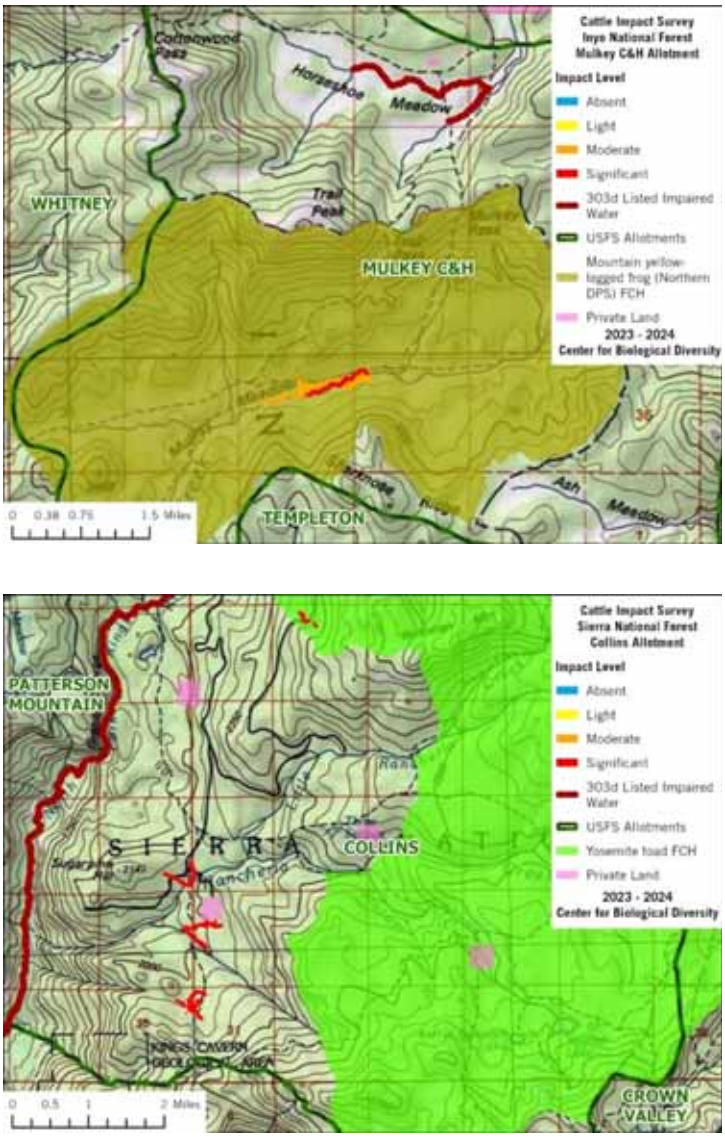

Figure 7: CBD cattle impact surveys 2023-2024.
Top: Mulkey C&H allotment, Inyo NF. Bottom: Collins allotment, Sierra NF.

In a 2009 survey of private lands on the Tejon Ranch which concluded that Mount Pinos sooty grouse are no longer present, Bland and White (2009, p. 4) observed extensive damage caused by livestock grazing. Noting that "ground-level shrub cover is essential in grouse nesting and brood-rearing habitats," and that "without it, nests and young are overly exposed to predation," Bland and White (2009) concluded that "the impacts of these practices would almost certainly need to be redressed before grouse could successfully reoccupy the range."

4.4 Recreational Uses

Recreational uses are also a threat to Mount Pinos sooty grouse meadow habitat. Bland (2002, p. 2) noted that many of the larger meadows that could potentially be used by grouse for brood rearing which he surveyed on the Sequoia National Forest had been developed into campgrounds and that the "hustle and bustle of a campground in midsummer may not be compatible with the demands of brood rearing" for grouse.

Bland (2002, p. 2) also observed the impact of motorcycle and off-road vehicle use was "quite apparent" on Forest Service lands in the Sequoia National Forest during surveys of montane habitats in Tulare and Kern Counties. The Kern Plateau, for example, has frequent motorized recreation use. Noting that these vehicles are frequently operated off-road and enable access to high elevation areas weeks in advance of the usual camping season, Bland (2002) concluded that the "quiet solitude that used to accompany grouse courtship rituals is gone."

4.5 Hunting

The California Department of Fish and Wildlife ("CDFW") classifies sooty grouse as "resident small game" available for hunting (Cal. Code Regs. Tit. 14, § 257, 2023). Current state regulations allow hunting of Mount Pinos sooty grouse within Fresno, Inyo, and Tulare Counties, with a daily take of 2 birds, and a maximum possession of 6 birds (CDFW 2025a). See Figure 8 for a map of the current CDFW sooty grouse hunt zone. The general hunt season for sooty grouse in California for 2025/2026 runs from September 13-October 13; the archery season from August 16-September 5; and the falconry season from August 16-February 28.

Figure 8: Current sooty grouse hunt zone in California (from CDFW)

On the Inyo National Forest, specific hunt zones have been established and interest in hunting sooty grouse has been on the rise (USFS 2019a, p. 41). On the Sequoia National Forest, sooty grouse is hunted within Fresno and Tulare Counties (USFS 2019b, p. 44). Differentiating between the more common Sierra subspecies and Mount Pinos subspecies is difficult in the field and a potential risk factor (USFS 2019b, p. 44). The USFS (2019a,b) acknowledged in management plan updates for the Sequoia and Inyo National Forests that hunters accurately differentiating between sooty grouse and the Mount Pinos subspecies in the field could be a potential risk factor. Clark (2023) provided evidence that a considerable number of hunters in Utah were unable to distinguish between grouse species (dusky and ruffed). The Forest Service states that because hunting of sooty grouse continues to be allowed by CDFW, this suggests populations of sooty grouse are "at least stable" (USFS 2019a, p. 44).

While this may be the case for sooty grouse statewide, CDFW hunting "take" numbers for Mount Pinos sooty grouse instead suggest a long term, sustained, and significant decrease in the species' population during the past 30 years, and that hunting could be a contributor to this decline. The data also show that CDFW continues to allow hunting of sooty grouse in counties where such hunting has not recently been successful, suggesting that the species is increasingly rare in those areas. Even though since 2010 no sooty grouse have been reported as successfully taken in Tulare County, and very few taken in Inyo County, CDFW continues to allow hunting in those counties. See Figure 9 for a summary of CDFW hunting data for the counties within the Mount Pinos sooty grouse range.

Sooty Grouse Annual Reported Hunt Take

Year	State-wide	Fresno County	Inyo County	Kern County	Tulare County
1994	11,065	41 (41)	1,409 (1,368)	2,528 (2,031)	0 (0)
2000	7,756	159 (350)	0 (64)	0 (0)	127 (604)
2005	7,483	0 (0)	353 (290)	0 (0)	0 (0)
2010	4,366	27 (27)	0 (0)	0 (0)	0 (80)
2016-2017	2,137	0 (0)	0 (203)	0 (0)	0 (509)
2018-2019	1,768	408 (816)	0 (136)	0 (0)	0 (0)
2020-2021	940	104 (313)	0 (0)	0 (0)	0 (0)
2022-2023	1,140	25 (123)	37 (319)	0 (0)	0 (61)

Figure 9: Sooty grouse reported annual hunting take for selected years since 1993 (from CDFW 1994, 2001, 2006, 2011, 2017, 2019, 2021, 2023).[3] Number of hunting days in parentheses.

[3] CDFW now only reports on biannual basis. 2022-2023 is the most recent report available. Data previously reported as blue grouse ascribed to sooty grouse.

The amount of take per hunting day for sooty grouse in the counties in the Mount Pinos sooty grouse range (Fresno, Inyo, Kern and Tulare) declined significantly since the 1990s and 2000s and has been consistently low since 2010. The sooty grouse harvest/hunt day ratio for these four counties in 1994 was 1.16 grouse/hunt day and in 2005 was 1.22 grouse/hunt day (see Figure 8). By 2000 the harvest/hunt day ratio was 0.28; in 2010 was 0.25; from 2016-2017 was 0 (despite 712 hunt days); in 2018-2019 was 0.43; in 2020-2021 was 0.33; and 2022-2023 was 0.12. After 2010, annual grouse harvest and hunting effort was tallied separately for sooty grouse. Although in some subsequent years the harvest/hunt day ratio for sooty grouse in the southern 4 counties is significantly lower than the statewide ratio, it is hard to discern any trends looking at the statewide take of sooty grouse per hunting day as compared to that ratio in Fresno, Inyo, Kern and Tulare counties.[4]

Several studies have conducted experiments on game bird populations to evaluate evidence for additive versus compensatory effects of harvest on survival. Early literature suggested maximum allowable harvest rates for ruffed grouse at 25% (Edminster 1947), 30-35% (Dorney and Kabat 1960), 40% (Palmer 1956), and 50% (Palmer and Bennett 1963). Most grouse managers have adopted the precautionary strategy of rarely harvesting more than 40% of the population in a given year (Hudson 1985). Devers et al. (2007) conducted a before-after experimental design of closed and open hunting areas for ruffed grouse in the Appalachian region to disentangle the effects of hunting on survival in those areas, finding that in the absence of hunting on treatment areas, ruffed grouse survival did not increase compared to areas that were open to hunting. This suggested that harvest mortality was compensatory at the level of harvest reported, which was 12% of all known mortalities, ranging from 4-30% of all known mortalities on 7 different study areas, and with a harvest rate on control areas of 8% (range 4-13%) and a mean harvest rate on treatment areas prior to closure of 20% (Devers et al. 2007). Sandercock et al. (2011) evaluated 3 different rates of harvests of willow ptarmigan (0%, 15%, and 30%) that were randomly assigned to designated study areas, and reported that 15% harvest rates were partially compensatory, whereas 30% harvest was additive to non-harvest mortality. Davis (2017) found that a ruffed grouse harvest rate of 16% in Maine produced rates of harvest that are consistent with sustainable population management.

[4] From 2016-2017 the statewide sooty grouse harvest/hunt day ratio was 0.36, while in the 4 southern counties it was 0.0 (CDFW 2017); from 2018-2019 it was 0.20 statewide compared to 0.43 in the 4 southern counties (CDFW 2019); from 2020-2021 it was 0.19 statewide compared to 0.33 in the 4 southern counties (CDFW 2021); and in 2022-2023 it was 0.24 statewide compared to 0.12 in the 4 southern counties (CDFW 2023).

In terms of considering the significance to statewide hunting if the Commission were to suspend hunting in most of the Mount Pinos sooty grouse range (Inyo and Tulare counties), the 2022-2023 hunting take of 37 sooty grouse in Tulare and Inyo counties represents only 3% of the statewide take of 1,140 grouse; and only 2.8% of hunters (37 of 1,312) would be affected statewide (CDFW 2023). See Figure 9.

4.6 Climate Change

Climate change is already negatively impacting the forested and meadow habitat of Mount Pinos sooty grouse. Mean annual temperatures in the Sierra Nevada region have generally increased by around 0.5–1.4 ℃ (1.0–2.5 °F) over the past 75–100 years (North 2012, p. 25). Under projected continued warming trends, the transition from snow to rain during a storm is expected to rise by 457–914 m (1,500–3,000 ft) (Dettinger et al. 2018, p. 21). Sierra Nevada snowpacks will be unlikely to form below about 1,829 m (6,000 ft) elevation, and snowpacks will be reduced by more than 60% across most of the Sierra Nevada by the end of the century (Dettinger et al. 2018, p. 21). Losses of snowpack may be even greater due to feedback loops with warming trends causing snow cover losses, and snow cover losses resulting in warmer land surfaces, thus enhancing warming trends in turn (Dettinger et al. 2018, pp. 5, 32). The higher snow-dominated elevations from 2,000–2,800 m (6,560–9,190 ft) will be the most sensitive to temperature increases (PRBO 2011, p. 23).

With increasing temperatures and less snowfall, the high-elevation old-growth conifer forests relied upon by Mount Pinos sooty grouse are highly vulnerable to climate change (Dettinger et al. 2018, p. 6). Subalpine conifer forests, for example, are at risk of substantial future loss (average 85%) by the end of the century (USFS 2019a, p. 41). The Forest Service has specifically identified alpine environments of the Kern Plateau as “among the most threatened” areas from climate change impacts (USFS 2019b, p. 41). Species that require older, denser, and more structurally complex forest conditions, like Mount Pinos sooty grouse, will be negatively impacted by changes in fire regimes and vegetation driven by climate change (Dettinger et al. 2018, p. 34).

Mount Pinos sooty grouse meadow habitat is also threatened by climate change. On the Sequoia National Forest, there are an estimated 556 meadows encompassing about 10,000 acres, or approximately 10% of the total forest area (USFS 2019b, p. 42). On the Inyo National Forest, wet meadows similarly occupy an estimated 10% of the Kern Plateau portion of the National Forest. A significant portion of these meadows have already been moderately to heavily impacted by shrub encroachment (USFS 2017, p. 27).

Climate change, especially the predicted changes in the magnitude and timing of the Sierra snowpack, will have "profound effects on meadow hydrology" (Dettinger et al. 2019, p. 34). The Forest Service predicts that climate change, including a change from a snow-dominated to rain-dominated system in the southern Sierra Nevada, may cause a decline in meadow habitat and a shift to dry meadows (Gross and Coppoletta 2013; USFS 2019b, p. 43).

Mount Pinos sooty grouse forested habitat has also experienced large tree mortality events due to drought conditions and beetle outbreaks (Preisler et al. 2017, p. 166).

4.7 Disease and Predation

Disease

There have been few reports of viral or bacterial diseases in sooty and dusky grouse (Zwickel and Bendell 2004, p. 239) and disease is not a known current threat to the Mount Pinos sooty grouse.

Predation

Any carnivorous mammal or raptorial bird within the range of sooty grouse can be considered a potential predator to them during some stage of their life cycle. Female sooty grouse will aggressively defend their young by standing their ground and flapping their wings. However, raptors such as goshawks and owls and mammalian predators such as martens, red squirrels, weasels, foxes, coyotes, and bobcats may prey on the eggs, chicks, or adults throughout the year. Data is limited, but raptors appear to be the principal predators in autumn and winter, while eggs of grouse are most often taken by mammals (Zwickel and Bendell 2004, p. 234).

Intensive timber harvesting and other large-scale alterations of habitat structure such as wildfire can disrupt the "predator-cover complex" of habitat for grouse, increasing the risk of predation (Bendell 2013, p. 303). Such logging could have been a factor in the extirpation of sooty grouse south of the Sierra Nevada (Bland 2013, p. 303). "Perhaps a century or more of logging in the sky islands eliminated elements of habitat structure that were essential for grouse or fragmented the habitat to the extent that the grouse were exposed to unsustainable rates of predation" (Bland 2013, p. 303).

5. INADEQUACY OF EXISTING REGULATORY MECHANISMS

5.1 Federal Regulatory Mechanisms

Endangered Species Act

In June 2024 the Center for Biological Diversity petitioned the USFWS to list the Mount Pinos sooty grouse under the federal Endangered Species Act (ESA), however, the U.S. Fish and Wildlife Service has not made a 90-day finding on that petition and is unlikely to make a finding or propose listing the species under the federal ESA during the Trump administration, let alone list the subspecies under the federal ESA.

Other species that overlap with the Mount Pinos sooty grouse in habitat and range that are already listed under the federal ESA could conceivably provide some protection. Thirteen federally ESA-listed species occur within the Mount Pinos sooty grouse range in California: Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), Southern Sierra Nevada DPS of fisher (*Pekania pennanti*), California condor (*Gymnogyps californianus*), Southwestern willow flycatcher (*Empidonax traillii extimus*), Little Kern golden trout (*Oncorhynchus aguabonita whitei*), Southern California DPS of steelhead trout (*Oncorhynchus mykiss*), Sierra Nevada yellow-legged frog (*Rana sierrae*), South Sierra DPS of foothill yellow-legged frog (*Rana boylii*), Northern DPS of mountain yellow-legged frog (*Rana muscosa*), Yosemite toad (*Anaxyrus canorus*), arroyo southwestern toad (*Anaxyrus californicus*), conservancy fairy shrimp (*Branchinecta conservation*), and vernal pool fairy shrimp (*Branchinecta lynchi*).

The primary way in which Mount Pinos sooty grouse could benefit from the ESA listing of these co-occurring species is through protection of high-elevation mature forested stands and meadow brooding habitats for grouse shared with habitat for these ESA listed species, specifically through legal protection of their essential habitats. Species listed under the ESA are required to have a “critical habitat” designation when “prudent and determinable.” Federal agencies are in turn required to consult with the USFWS to avoid “destruction” or “adverse modification” of designated critical habitat (USFWS 2017, p. 1). Therefore, a critical habitat designation for ESA listed species could indirectly protect habitat for co-occurring non-listed species.

Six of the ESA-listed species that occur within the range of Mount Pinos sooty grouse have a significant amount (more than 10,000 acres) of designated critical habitat in California that overlaps with the Mount Pinos sooty grouse range: California condor (77,420 acres of

overlap); Little Kern golden trout (82,334 acres of overlap); Northern DPS of mountain yellow-legged frog (220,769 acres of overlap); Sierra Nevada bighorn sheep (245,314 acres of overlap); Sierra Nevada yellow-legged frog (156,075 acres of overlap); and Yosemite toad (67,483 acres of overlap). 339,579 acres of critical habitat that is proposed for the Southern Sierra Nevada DPS of fisher overlaps with the Mount Pinos sooty grouse range, but that proposed critical habitat designation is highly unlikely to be finalized under the Trump administration. See Figure 10 for a map of designated and proposed critical habitats that overlap with the Mount Pinos sooty grouse range.

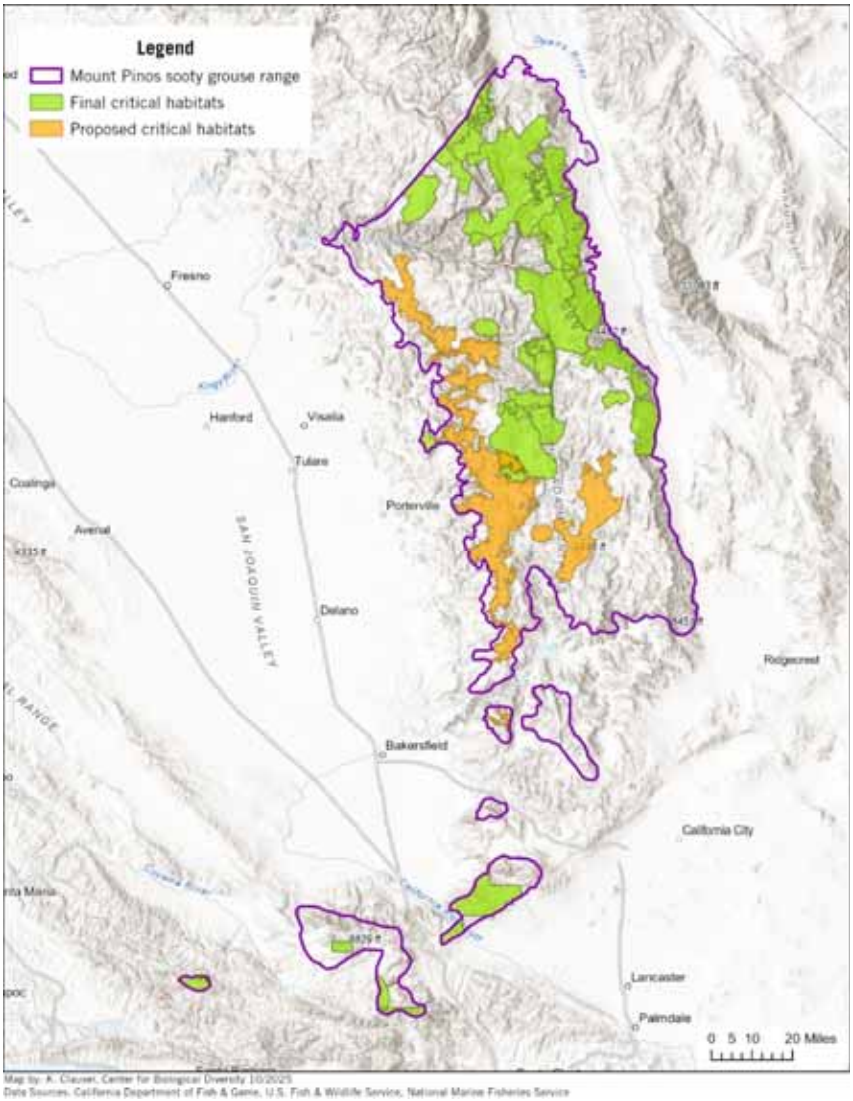

Figure 10. Designated and proposed critical habitats for ESA listed species within Mount Pinos sooty grouse range.

However, the vast majority of the designated critical habitat areas for these six ESA listed species are outside the currently occupied range of the Mount Pinos sooty grouse or consist of primary constituent elements (PCEs) which do not overlap with the biological features such as high elevation mature forested stands or meadow brooding habitats needed by Mount Pinos sooty grouse.

The California condor critical habitat (USFWS 1977) overlaps with the Mount Pinos sooty grouse range in portions of Kern, Tulare, and Ventura counties where sooty grouse have been extirpated. Also, the specific PCEs for condor critical habitat such as caves and rocky ledges for nesting, large trees or snags for roosting, and open grasslands, oak savannas, and coastal areas for foraging do not protect biological features needed by Mount Pinos sooty grouse.

The Little Kern golden trout critical habitat (USFWS 1978) that overlaps with the Mount Pinos sooty grouse range contains the specific PCEs of the Little Kern River and its tributaries, which does not protect biological features needed by Mount Pinos sooty grouse.

The Sierra Nevada bighorn sheep critical habitat (USFWS 2008) that overlaps with the Mount Pinos sooty grouse range contains the specific PCEs of non-forested habitats or forest openings within the Sierra Nevada from 4,000 to 14,500 ft in elevation with steep ($\leq$60% slope) rocky slopes and granite outcroppings, which does not protect biological features needed by Mount Pinos sooty grouse.

The vast majority of the designated critical habitat for the Northern DPS of mountain yellow-legged frog, Sierra Nevada yellow-legged frog, and Yosemite toad (USFWS 2016) that overlaps with the Mount Pinos sooty grouse range consists of specific PCEs that are primarily high-elevation water bodies (such as lakes and stream pools) used by frogs and toads for breeding, feeding, refuge and growth, and adjacent proximate lands. These aquatic feature PCEs do not protect any biological features needed by Mount Pinos sooty grouse; the exception is small portions of the designated critical habitats for these listed amphibians that contain mesic habitats such as wet meadow systems suitable for amphibian foraging habitats, migration routes and dispersal corridors (USFWS 2016) that could protect some meadow brooding habitats needed by Mount Pinos sooty grouse.

There are no approved Habitat Conservation Plans under the ESA in California that cover Mount Pinos sooty grouse (USFWS 2025).

National Parks and National Monuments

National Parks conserve important natural and historic lands to leave them "unimpaired" now and in the future (NPS 2017, p. 1) and help to protect and restore at-risk species, including those listed under the ESA and Migratory Bird Treaty Act (MBTA) (NPS 2023, p. 1). Most National Parks are generally closed to logging, hunting, mining, commercial livestock grazing and other "consumptive activities" (NPS 2015, p. 1). There are two National Parks, Kings Canyon National Park and Sequoia National Park, within the range of the Mount Pinos sooty grouse. See Figure 11. There is one National Monument within the range of the Mount Pinos sooty grouse, Giant Sequoia National Monument, which is managed by the US Forest Service under a 2012 management plan (USFS 2012a). See Figure 11.

The Giant Sequoia National Monument management plan prohibits mining, commercial timber harvest, and off-road vehicle use. However, it allows extensive livestock grazing, including in meadow ecosystems, wilderness areas, inventoried roadless areas, and along wild and scenic rivers (USFS 2012a, 2012b). The USFS allows commercial grazing on about 218,000 acres (two-thirds) of the monument's grassland, chaparral, open forest, and riparian meadows, where there are 22 permitted allotments and ~15,757 "head months" of livestock permitted (USFS 2012, Chapter 2). The USFS did not evaluate management alternatives that reduce grazing through restrictions in use (such as reduced number of cattle, changes in duration, frequency, intensity, seasonality of use), or through protective measures such as increased fencing and large grazing exclosures in uplands and riparian areas (Geos Institute 2012). Nor does the USFS require sufficient ecosystem protection or restoration measures, and the grazing in the Monument causes soil compaction, altered channel morphology and riparian communities, elevated fuel hazards, and spread of invasive plants (Geos Institute 2012).

U.S. Forest Service Sensitive Species

The current Mount Pinos sooty grouse range includes the Inyo National Forest, Sierra National Forest, and Sequoia National Forest; and the Los Padres National Forest contains some of the historic Mount Pinos sooty grouse range. See Figure 11. Region-specific sensitive species lists are created for vulnerable and declining species on U.S. Forest Service lands, managed under the agency's Threatened, Endangered, and Sensitive Species (TES) program (USFS 2025, p. 1). The Mount Pinos sooty grouse is designated as a Species of Special Concern on the Inyo and Sequoia National Forests. Region 5 of the Forest Service lists the Mount Pinos sooty grouse as a "Management Indicator Species" (MIS) and a "Species at Risk" (with moderate vulnerability) for Sierra Nevada Forests, which

include the Inyo, Sierra, and Sequoia National Forests. TES species in each USFS region are supposed to be provided management plans to work towards the recovery and conservation of their populations and habitat (Ibid).

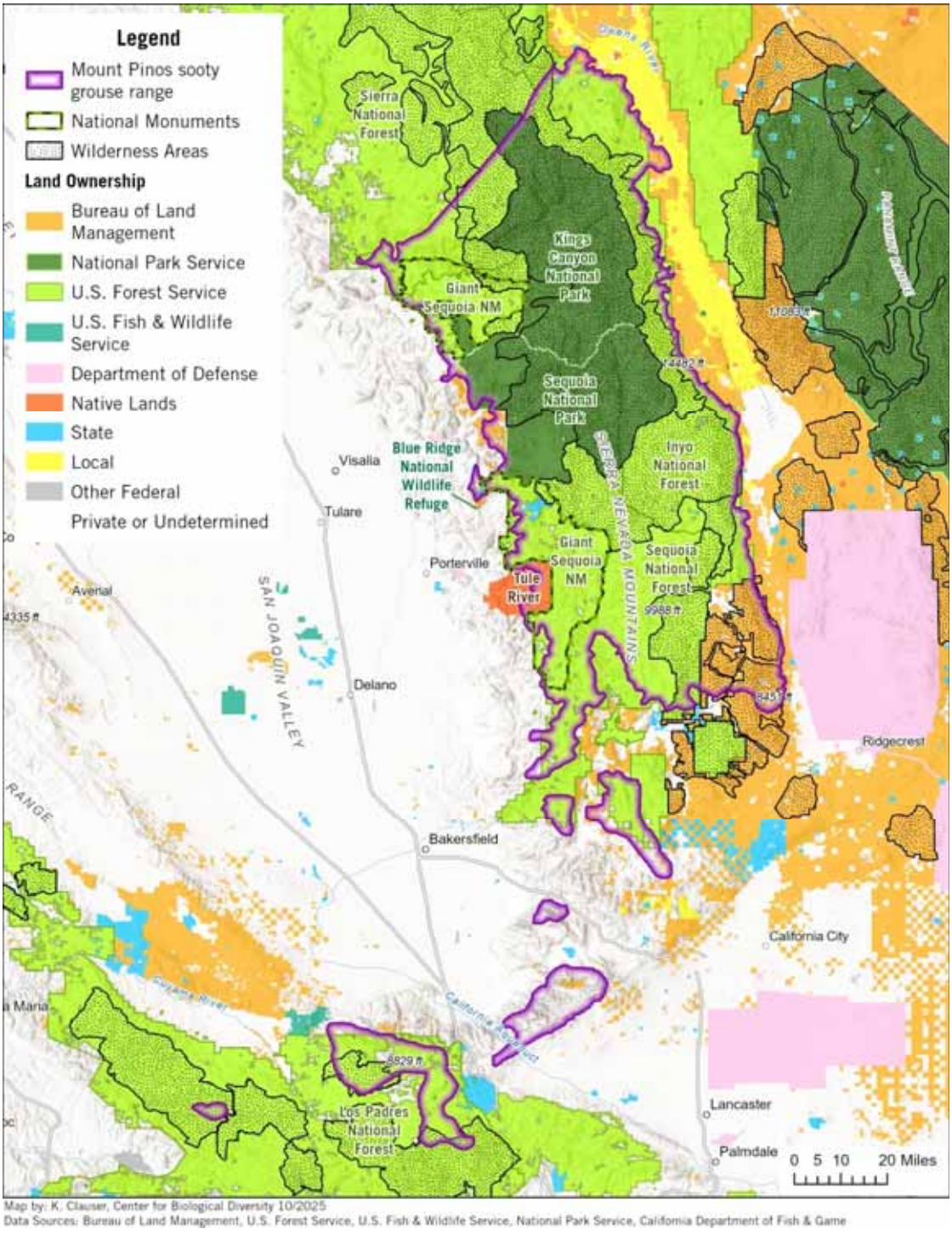

Figure 11: Land ownership within the range of Mount Pinos sooty grouse

However, the Forest Service's recently revised (in 2023) land management plan for the Sequoia National Forest continues to permit extensive timber harvest within tens of thousands of acres in the heart of the Mount Pinos sooty grouse's remaining range on the Kern Plateau. And through the recently revised Inyo and Sequoia land management plans (USFS 2019, 2023) both National Forests continue to plan, authorize, and implement commercial timber harvest, as well as snag removal and "salvage" logging post-fire or beetle-kill events, all of which will negatively impact Mount Pinos sooty grouse habitat. The Forest Service continues to authorize damaging livestock grazing in much of the Sequoia National Forest and portions of the Inyo National Forest within Mount Pinos sooty grouse meadow habitats (Vernon et al. 2022; Beschta et al. 2013). Both the Inyo and Sequoia National Forests continue to allow hunting zones for Mount Pinos sooty grouse.

There is potential for massive damage to national forests and wildlife habitat from increased logging and road building, including in the southern Sierra Nevada and likely within the Mount Pinos sooty grouse range, due to the Trump administration executive order on accelerated logging on federal lands (TWH 2025a) and the Department of the Interior's attempts to rescind the roadless rule (USDOI 2025b), as well as continuing legislative attempts to sell off public lands. More than 1 million acres of forests in the Inyo, Sierra, and Sequoia National Forests are at risk of accelerated logging. The Trump administration has directed the secretaries of Commerce, Interior and Agriculture to design plans that would "facilitate increased timber production," expand their legal authority to extract timber, and eliminate protections that create an "undue burden" on cutting down trees (TWH 2025a). The Secretary of Agriculture issued a memorandum in 2025 (USDOA 2025) declaring an "emergency" across 110 million acres of national forest, including tens of millions of acres of designated wilderness areas, wilderness study areas and inventoried roadless areas, as well as more than 300,000 acres of research natural areas, which the Forest Service typically manages to protect from all human activity. Most of these areas are critically important as wildlife habitat. Logging projects proposed within "emergency" areas would receive reduced environmental review and limited opportunities for opponents of harmful projects to challenge them in court. The Secretary of Agriculture announced in 2025 a repeal of the "roadless rule" to allow for timber harvest on more than 58 million acres of national forests (USDOI 2025b); this could allow logging on an estimated 4 million acres of roadless forests in California (Becker 2025). The Inyo, Sierra, and Sequoia National Forests have more than 1.2 million acres of inventoried Roadless Areas that are at risk.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) theoretically could have provided some protection for the Mount Pinos sooty grouse. For activities undertaken, authorized, or funded by federal agencies, NEPA requires that the potential impacts of projects on the human environment be analyzed prior to implementation (42 U.S.C 4371 et seq). If significant environmental effects are predicted to occur, federal agencies were previously required to propose mitigations that could offset those effects (40 CFR 1502). Only projects with a federal nexus (i.e. federal funding, authorization, or permitting) fall under NEPA, and therefore actions taken by state or private landowners generally are not required to comply with this law (USFWS 2009, p. 16).

A recent recission of 40 CFR 1500-1508 (and thus all CEQ NEPA implementing regulations) no longer requires agencies to propose such mitigations. In July 2025 the Trump administration revoked regulations governing environmental reviews under NEPA for numerous federal agencies, including the Department of Agriculture, Department of the Interior, Department of Energy, Department of Transportation and the Federal Energy Regulatory Commission (CEQ 2025, p. 10611; see CBD 2025a). The decision will prevent adequate environmental review and allow unmitigated logging, grazing, hunting, and recreational uses on federal lands.

Migratory Bird Treaty Act

The Mount Pinos sooty grouse theoretically receives some protection through the Migratory Bird Treaty Act (MBTA) 16 U.S.C. § 703 et seq. The MBTA prohibits direct actions to "pursue, hunt, take, capture, [or] kill" any migratory bird included in the terms of the treaties (16 U.S.C. § 703). The MBTA provides a legal basis for regulatory agencies such as CDFW and USFWS to make recommendations on CEQA related projects to conserve the Mount Pinos sooty grouse. However, regulatory agency recommendations on CEQA related projects are routinely ignored, as discussed below. The MBTA provides no authority for protection of habitat and food sources nor does it require protection of critical habitats (Ibid). As habitat loss is considered one of the greatest threats to the Mount Pinos sooty grouse, the MBTA is not sufficient in providing protection for the species. Petitioners are unaware of any enforcement of the MBTA for take of Mount Pinos sooty grouse in California. Furthermore, the Trump administration recently reinstated an interpretation of the MBTA statute that would eliminate any protection from indirect forms of take (USDOI 2025a, p. 1).

5.2 State Regulatory Mechanisms

Species of Special Concern

The Mount Pinos sooty grouse is designated as a California "Bird Species of Special Concern" (SSC) (CDFG 2008). The SSC designation is intended to result in special consideration by CDFW, land managers, and project proponents and permitting agencies, as well as to focus research and management attention on the species. SSC are supposed to get this special consideration during preparation of CEQA documents, and in CDFW comments on CEQA documents with proposed conservation and mitigation measures. The practical benefit of the SSC designation for the Mount Pinos sooty grouse is minimal. Such status may call attention to the subspecies and prompt more information to be collected about the loss of its habitat in Environmental Impact Reports and other documents, but it has not halted the habitat loss or other factors causing the decline of the Mount Pinos sooty grouse. SSC species do not benefit from the prohibitions against "take" that a federally or state listed species would get. The inadequacy of the SSC designation to protect the Mount Pinos sooty grouse is demonstrated by its current imperiled status in California.

State Wildlife Action Plan

California's State Wildlife Action Plan (SWAP) also denotes the Mount Pinos sooty grouse as a Species of Special Concern (CDFW 2025b, p. C-11). However, the SWAP is not a regulatory mechanism but rather qualifies species for State Wildlife Grants provided by USFWS, to address conservation needs such as research, surveys, and management for Species of Greatest Conservation Need (SCGN), the equivalent of Species of Special Concern. The statuses and designations in the SWAP provide no legal protection for Mount Pinos sooty grouse. Generally, the SWAP purpose is to give attention to the species which require special management consideration, stimulate research, and ideally achieve conservation management plans and recovery of species to prevent listing of threatened/endangered on a state or federal level (USFWS 2020, p. 1, 4-5).

Natural Communities Conservation Planning

The state Natural Communities Conservation Planning Act (California Fish and Game Code §2800) was enacted in 1991, to provide for comprehensive, regional multi-species planning. The entirely voluntary NCCP program is intended to preserve blocks of contiguous habitat large enough to sustain viable populations of listed species and to

prevent the need for additional listings, while still allowing for "compatible and appropriate" economic growth and development. There are no approved state NCCPs covering the Mount Pinos sooty grouse (CDFW 2025c).

California Environmental Quality Act

Non-federal development projects in California are regulated by the California Environmental Quality Act (CEQA; Public Resources Code 21000–21189), which declares legislative intent of the state to "develop and maintain a high-quality environment now and in the future" as well as "prevent the elimination of fish and wildlife species due to man's activities [and] insure that…populations do not drop below self-perpetuating levels" (CEQA Statute 2025 §§ 21001, p. 1). Through the act, public agencies in California are legally required to disclose and evaluate all environmental impacts of proposed projects and adapt alternative plans or mitigation measures that would "substantially lessen significant [adverse] environmental effects" where feasible (Ibid §§ 21002.1 & 21065-21068, p. 2, 7).

However, for Species of Special Concern like the Mount Pinos sooty grouse, CEQA does not provide any specific legal protection aside from the requirement that projects triggering CEQA review must analyze the impacts of the proposed action on such species if it is determined to meet the criteria of sensitivity under Section 15380 as provided below (Ibid §§ 15065, 15380, p. 212, 340):

> "A species of animal or plant is:
> (1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or
> (2) "Rare" when either:
> (A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or
> (B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act."

Theoretically, besides ensuring environmental protection through procedural and informational means, CEQA also has substantive mandates for environmental protection.

The most important of these is the provision requiring public agencies to deny approval of a project with significant impacts when feasible alternatives or feasible mitigation measures can substantially lessen such effects. In practice, this mandate is rarely implemented by lead agencies. Project proponents and approving agencies frequently dismiss alternatives that would protect wildlife as "infeasible."

Once significant impacts are identified, the lead agency has the option to require mitigation for effects through changes in the project, claim a categorical exemption, or to decide that overriding considerations make mitigation infeasible. In the latter case, projects may be approved that cause significant environmental damage, such as destruction of sensitive species. Though state and federal wildlife agencies can weigh in, protection of non-listed species through CEQA is at the discretion of the lead agency involved. CEQA provides that when overriding social and economic considerations can be demonstrated, project proposals may go forward, even in cases where the continued existence of the species may be threatened, or where adverse impacts are not mitigated to the point of insignificance.

Even when a lead agency acknowledges that an effect is "significant," CEQA allows a lead agency to adopt a "statement of overriding considerations" and approve a project if the agency finds that other factors outweigh the environmental costs of the project or that further mitigation is infeasible. (Cal. Code Regs., tit. 14, § 15093(b); Cal. Pub. Res. Code § 21081.) This means that even if a project may have a significant effect on a wildlife population, an agency could interpret CEQA as still allowing approval of the project.

While projects impacting the Mount Pinos sooty grouse are likely to meet the sensitivity criteria under Section 15380, this would still have to be determined on a project-by-project basis. Even if significant impacts to Mount Pinos sooty grouse were found, under CEQA lead agencies are allowed to continue projects with adverse environmental impacts if all "feasible" mitigation measures have been adopted and it has been determined that social or economic factors outweigh environmental costs (Ibid §§ 15091, p. 229).

Moreover, there are continuing legislative attempts to undermine CEQA and make it easier for developers to avoid or narrow environmental review for a host of projects. For example, S.B. 607, authored by Sen. Scott Wiener (D-San Francisco), would allow more projects to bypass or limit environmental review even if there is evidence that the project would have serious consequences. In June 2025, the state legislature passed and Governor Newsom signed sweeping rollbacks to CEQA that will exempt certain projects from environmental review and restrict legal challenges.

Finally, CEQA was never intended to be, nor does it function as a habitat protection mechanism. CEQA cannot be relied upon to consistently protect the Mount Pinos sooty grouse.

Recommendations for Future Management

1. Confirm the subspecific status of the Mount Pinos sooty grouse with modern genetic techniques and determine whether sooty grouse remaining in the Southern Sierra Nevada south of the Kings River are part of *sierrae* or *howardi*.

2. Map all potential remaining habitat patches suitable for Mount Pinos sooty grouse.

3. Conduct surveys of all potential Mount Pinos sooty grouse breeding sites.

4. Protect Mount Pinos sooty grouse essential habitat by restricting the land management practices which likely caused the decline and extirpation of this subspecies, such as logging, fire suppression, livestock grazing, and motorized recreation.

5. Suspend hunting of Mount Pinos sooty grouse within its greatly receded range in Tulare and Inyo counties until the overall impact of hunting on the subspecies can be determined.

6. Following genetic testing on the subspecies, investigate the potential for reintroduction of Mount Pinos sooty grouse to montane habitat islands in its historic Southern California range where grouse have apparently been extirpated.

7. Take measures to restore old-growth forest and meadow habitats in the Mount Pinos sooty grouse range.

Individuals with Sooty Grouse Expertise Supporting Petitioned Action

James Bland, PhD
Professor of Biology, Santa Monica College (retired)
Conducted Mount Pinos sooty grouse surveys for CDFG from 1993-2006
Author of Mount Pinos sooty grouse account for 2008 California Bird Species of Special Concern report

Monica L. Bond, PhD
Wildlife Biologist and Principal Scientist for Wild Nature Institute
Former biologist and investigator with Institute for Bird Populations (seral forests and fire ecology in the Sierra Nevada; foraging and nesting ecology of black-backed woodpeckers; demography, ecology and post-fire use of forests by California spotted owls)

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