RYAN ADAIR SHANNON (OR Bar No. 155537)
CENTER FOR BIOLOGICAL DIVERSITY
P.O. Box 11374
Portland, OR 97211
Tel: 971-717-6407
rshannon@biologicaldiversity.org

Lead Counsel for Plaintiffs

UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

Portland Division

Civil Action No.: 25-1259

CENTER FOR BIOLOGICAL DIVERSITY, **CASCADIA WILDLANDS**, **OREGON WILD**, and **BIRD ALLIANCE OF OREGON**,

Plaintiffs,

v.

DOUG BURGUM, in his official capacity as Secretary of the Interior, **PAUL SOUZA**, in his official capacity as acting Director of the U.S. Fish & Wildlife Service, and **U.S. FISH AND WILDLIFE SERVICE**,

Defendants.

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. Plaintiffs, the Center for Biological Diversity ("Center"), Cascadia Wildlands, Oregon Wild, and the Bird Alliance of Oregon, challenge the U.S. Fish and Wildlife Service's ("Service") finding that the north Oregon coast distinct population segment of red tree vole ("Oregon Coast DPS") does not warrant protection as an endangered or threatened species under

the Endangered Species Act ("ESA"). 89 Fed. Reg. 8137 (Feb. 6, 2024) ("not-warranted finding"). Defendants' not-warranted finding deprives the Oregon Coast DPS of critical protections necessary to ensure its continued survival and recovery, fails to follow the best available science, and is arbitrary and capricious, in violation of the ESA and the Administrative Procedure Act ("APA").

2. The red tree vole (*Arborimus longicaudus*) is an arboreal mammal that rarely visits the ground and uniquely subsists on a diet of conifer needles. Within the Oregon Coast DPS, it has been eliminated from most of its historic range, is continuing to lose habitat due to logging, and is existentially threatened by wildfire; the risk of which is increasing due to climate change. This has left the Oregon Coast DPS's remaining populations fragmented, isolated and disconnected, and in danger of extinction.

3. These threats led the Center to petition the Service to list the Oregon Coast DPS as an endangered or threatened species under the ESA on June 28, 2007. In response, the Service found the Oregon Coast DPS warrants listing as an endangered or threatened species in 2011, but deferred immediately protecting it under the ESA citing higher priorities. 76 Fed. Reg. 63,720, 63,753–63,756 (Oct. 13, 2011). The Service repeated this warranted determination five additional times—most recently on October 10, 2019. 84 Fed. Reg. 54,732, 54,751. Each time the Service affirmed its finding that the Oregon Coast DPS warrants the protections of the ESA.

4. In 2019, however, the Service abruptly reversed course and denied ESA protections. 84 Fed. Reg. 69,707, 69,709–10 (Dec. 19, 2019). After the Center challenged this decision, *Ctr. for Biological Diversity, et al. v. U.S. Fish and Wildlife Service, et al.*, 3:21-cv-455-HZ (D. Or.), and following a motion for summary judgment from the Center, the Service found it "prudent" to revisit its finding, *see id.* Stipulated Settlement Agreement, ECF 35.

5. Despite this, on February 6, 2024, the Service again found the Oregon Coast DPS did not warrant listing as an endangered or threatened species under the ESA. 89 Fed. Reg. 8137.

6. In doing so, the Service repeated its prior acknowledgment that the Oregon Coast DPS's habitat has been greatly reduced, and that its remaining habitat is fragmented, leaving the Oregon Coast DPS's populations isolated from one another, and at great risk from logging and wildfire.

7. Nevertheless, the Service's found that the Oregon Coast DPS did not warrant listing because it allegedly retains numerous "geographic units" with moderate or high resiliency that are well-distributed across its range.

8. The Service's not-warranted finding, however, ignores key findings of numerous peer-reviewed studies that show the Oregon Coast DPS is at risk of extinction, and downplays the risk of habitat fragmentation, isolation, and wildfire. Contrary to the unduly rosy picture painted by the Service, the Oregon Coast DPS's remaining disconnected and isolated populations face serious threats to their survival.

9. Compounding these errors, the Service failed to adequately consider whether the Oregon Coast DPS is an endangered or threatened species in a "significant portion of its range." 16 U.S.C. §§ 1532(6), (20), 1533(a)(1). Specifically, the Service found that the Oregon Coast DPS populations uniquely adapted to Sitka spruce habitat did not constitute a biologically significant portion of its range despite the Service's numerous prior findings to the contrary and entirely failed to consider whether the 81 percent of the Oregon Coast DPS's range on private and State lands constitutes a "significant portion of its range."

10. For these and additional reasons, the Service's not-warranted finding is arbitrary and capricious and violates the ESA's requirement that listing decisions must be based solely on

the best available science. To remedy these violations, the Center seeks an order vacating the Service's not-warranted finding and remanding the matter to the Service to issue a new finding regarding whether the Oregon Coast DPS warrants protection under the ESA as an endangered or threatened species by a date certain.

JURISDICTION AND VENUE

11. This action is brought pursuant to the ESA, 16 U.S.C. § 1540(g)(1)(C), which waives Defendants' sovereign immunity. This Court has jurisdiction over this action under Section 11(g) of the ESA, *id*. § 1540(g), 28 U.S.C. § 2201 (declaratory judgment), 28 U.S.C. § 1331 (federal question), and 5 U.S.C. § 702 (review of agency action under the APA).

12. Venue in this Court is proper under 28 U.S.C. § 1391(e) and 16 U.S.C. § 1540(g)(3)(A) because Defendants are officers and employees of the United States acting in their official capacity and a substantial part of the violations giving rise to the claim occurred in this judicial district. Venue is proper in the Portland Division according to Local Rule 3-2 because a substantial part of the events giving rise to the claims occurred in this Division as the Service's Oregon Fish and Wildlife Office in Portland, Oregon prepared the not-warranted finding.

13. Plaintiffs provided Defendants with 60 days' written notice of Plaintiffs' intent to sue on June 20, 2024, as required by 16 U.S.C. § 1540(g)(2).

PARTIES

14. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY (the "Center") is a national, non-profit conservation organization that works through science, law, and the media to protect imperiled species and their habitats, including the Oregon Coast DPS. The Center has more than 93,000 members, including over 3,300 members in Oregon. The Center is incorporated in

California and headquartered in Tucson, Arizona, with offices throughout the United States including in Portland, Oregon. The Center brings this action on behalf of its members.

15. The Center's members' have aesthetic, recreational, and scientific interests in the Oregon Coast DPS and its habitat. These interests are harmed by the Service's arbitrary and capricious not-warranted finding which failed to follow the best available science when it denied the ESA's protections to the Oregon Coast DPS.

16. For instance, Center member David Noah Greenwald has worked to conserve the Oregon DPS since 2007 when he submitted the petition to list the Oregon Coast DPS as a threatened or endangered species. Over the last ten years, he has visited the Tillamook State Forest and other parts of the North Coast within the Oregon Coast DPS's range on multiple occasions and has personally witnessed the destruction of red tree vole habitat through clearcutting. In the coming year, he plans to visit red tree vole habitat within the Oregon Coast DPS's range on numerous occasions, including plans to look for them, or at least their nests, while hiking to the top of Saddle Mountain in September 2025 since this is one of the last places they are known to occur within the northern portion of the Oregon Coast DPS's range. He also will look for them and their nests while looking for chanterelles in the Tillamook State Forest in September 2025.

17. Plaintiff CASCADIA WILDLANDS is a local grassroots conservation organization founded in 1998, headquartered in Eugene, Oregon, that works to defend and restore the Cascadia bioregion's wild ecosystems. Cascadia Wildlands envisions vast old-growth forests, rivers full of wild salmon, wolves howling in the backcountry, a stable climate, and vibrant communities sustained by the unique landscapes of the Cascadia bioregion. Cascadia Wildlands is registered under Internal Revenue Code § 501(c)(3) as a tax-exempt organization.

With over 15,000 members and supporters, the majority of whom live and recreate in the Cascadia bioregion, including within the Oregon Coast DPS's range, Cascadia Wildlands focuses its work on safeguarding the remaining mature and old-growth forests and protecting wild rivers in the Cascadia bioregion, and advocating for the rare species that call these special places home.

18. Cascadia Wildlands has a specific interest in the plight of the Oregon Coast DPS and in defending the integrity of the ESA. Cascadia Wildlands and its members have an interest in ensuring that the Oregon Coast DPS receives the requisite protections to aid the species in surviving the threats posed by habitat loss and habitat fragmentation and the impacts of climate change. They are also harmed by the Service's failure to provide ESA protections to the Oregon Coast DPS.

19. For instance, Cascadia Wildlands member Reed M. Wilson has worked to protect the Oregon Coast DPS for twenty-four years from the destructive effects of commercial logging on federal lands. During that time, he has traveled thousands of miles, climbed hundreds of trees, and spent hundreds of nights camping in public lands that are set to be logged looking for red tree voles. For instance, on January 16, 2013, he climbed trees within the Oregon Coast DPS's range with James Swingle, M.S. and Dr. Eric Forsman and found five red tree vole nests in the only pocket of suitable habitat in the Tillamook Forest district. He regularly surveys for red tree voles and will continue to survey for the species throughout the Oregon Coast DPS's range for as long as he is able. He also will continue to camp and look for red tree voles within the Oregon Coast DPS's range on an ongoing basis. He has previously surveyed six federal timber sales in the Oregon Coast DPS's range and recently scouted a seventh timber sale, the Aloha Trout project, on June 20, 2025, searching for trees with structures, cavities, or visible accumulations

of debris capable of supporting red tree vole nests. He plans to return to the Aloha Trout Project area in the future both before and after the U.S. Bureau of Land Management releases maps of the harvest units, and plans to return at least twice before September 1, 2025, and again after the environmental assessment for the project is released. He also plans to return to the project area in October with a friend where they will tour it searching for evidence of red tree voles. If he finds evidence of red tree vole nests, he will climb into the canopy in an attempt to confirm the presence of red tree voles.

20. Plaintiff OREGON WILD is a state-based, nonprofit conservation organization founded in 1974 that works to protect Oregon's wildlands, wildlife, and waters as an enduring legacy for future generations. Its main office is located in Portland, Oregon with additional field offices in Eugene, Bend, and Enterprise, Oregon.

21. Oregon Wild has a longstanding history of advocating for the protection of Oregon's ancient forests, public lands, rivers and streams, native wildlife and the habitat they call home. Oregon Wild's members enjoy the recreational, aesthetic, and ecological value of the forests that support the imperiled Oregon Coast DPS. They are also harmed by the Service's failure to provide ESA protections to the Oregon Coast DPS.

22. For instance, Oregon Wild member Doug Heinken uses and enjoys the mature and old-growth forests within the Oregon Coast DPS's range for hiking, nature appreciation, photography, and personal renewal. He has visited and enjoyed red tree vole habitat within the Oregon Coast DPS's range numerous times over the last 15 years, and while doing so he is typically on the lookout for indications of red tree vole habitat and red tree vole presence. On more than one occasion he has found resin ducts on the forest floor beneath large conifer trees and seen nests in conifer trees that may be nests used by red tree voles. He plans on going back

to enjoy the mature and old-growth forests of the northern Oregon Coast Range in the future with specific plans to visit areas that potentially provide habitat for the Oregon Coast DPS in the forests southeast of Hebo, Oregon on September 5, 2025. He plans to continue to visit potential habitat for the Oregon Coast DPS on other occasions as well.

23. Plaintiff BIRD ALLIANCE OF OREGON was founded in 1902 and is organized under the laws of Oregon as a 501(c)(3) non-profit organization. The organization has approximately 12,000 members, a paid staff of 45, and about 875 active volunteers. Bird Alliance of Oregon is regarded as one of the largest and most active of the more than 500 local chapters of the National Audubon Society.

24. The mission of Bird Alliance of Oregon is to inspire all people to love and protect birds, wildlife, and the natural environment upon which life depends. Specifically, Bird Alliance of Oregon focuses on protecting species and habitat in the Portland area and the Pacific Northwest. Bird Alliance of Oregon pursues this mission through science-based environmental education, nature-oriented trips and events, and wildlife rehabilitation, as well as vigorous advocacy of conservation policy at the local, state and federal levels. Bird Alliance of Oregon's members enjoy the recreational, aesthetic, and ecological value of the forests that support the imperiled red tree vole. They are also harmed by the Service's failure to provide ESA protections to the Oregon Coast DPS.

25. For instance, Bird Alliance of Oregon member Paul Engelmeyer has personally been involved in efforts to protect old growth habitat critical to Oregon Coast DPS for more than 30 years. He regularly uses and enjoys the forests within the Oregon Coast DPS's range for hiking, education, foraging for mushrooms, and recreational purposes. In particular, he enjoys walking in the mature and old-growth forests that make up the Oregon Coast DPS's habitat and

plans to continue doing so on an ongoing basis, including throughout 2025. He lives directly adjacent to Siuslaw National Forest lands within the Oregon Coast DPS's range in the Sitka Spruce zone just south of Cummins Creek Wilderness and north of Rock Creek Wilderness. Living so close by, he regularly hikes and recreates in various locations within the Siuslaw National Forest including along Alsea Creek and Beaver Creek. He plans to continue to do so on a regular and ongoing basis for the foreseeable future and is always on the lookout for red tree vole habitat and hopes to spot their nests, if not a live red tree vole.

26. Plaintiffs' members' aesthetic, recreational, and scientific interests in the Oregon Coast DPS have been and will continue to be harmed by Defendants' failure to provide needed ESA protections. A species does not receive any protections under the ESA until it is listed as endangered or threatened. Without these protections, endangered and threatened species continue to decline toward extinction and become harder to conserve as their situations become dire. Thus, without the protections provided by the ESA, the Oregon Coast DPS lacks critical protections and will continue to decline across its range, making it less likely that Plaintiffs' members will be able to view and enjoy them. This injury will persist unless the relief sought in this Complaint is granted.

27. Defendant DOUG BURGUM is the Secretary of the Interior ("Secretary"). As Secretary, he has the ultimate responsibility to administer and implement the provisions of the ESA regarding the Oregon Coast DPS, and to comply with all other federal laws applicable to the U.S. Department of the Interior. Plaintiffs sue Defendant Burgum in his official capacity.

28. Defendant PAUL SOUZA is exercising the authority of the Director of the Fish and Wildlife Service. Plaintiffs sue Defendant Souza in his official capacity.

29. Defendant U.S. FISH AND WILDLIFE SERVICE is a federal agency within the Department of the Interior. The Secretary has delegated to the Service the authority to administer the ESA for non-marine species. 50 C.F.R. § 402.01(b). This authority encompasses proposed and final listing determinations for the Oregon Coast DPS.

STATUTORY AND REGULATORY BACKGROUND

Endangered Species Act

30. The Supreme Court has stated that the ESA is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). Its purpose is to provide "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved," and "a program for the conservation of such endangered species and threatened species." 16 U.S.C. § 1531(b).

31. The ESA directs the Service to add species it determines are endangered or threatened to a list of endangered and threatened species, a process known as "listing." *Id*. § 1533(a); 50 C.F.R. § 17.11 (lists of endangered and threatened wildlife).

32. A "species" is defined by the Act to include "any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." 16 U.S.C. § 1532(16). The ESA does not define "distinct population segment" ("DPS"), but the Service's "Policy Regarding the Recognition of Distinct Vertebrate Population Segments," 61 Fed. Reg. 4,722 (Feb. 7, 1996) ("DPS Policy"), requires the Service when considering whether a population segment is a DPS to determine whether a population segment is "discrete" and "significant." A population is "discrete" if it is markedly separated from other populations of the same taxon due to physical, physiological, ecological, or behavioral factors. A population is "significant" if: it

persists in an ecological setting that is unusual or unique for the species; loss of the population would result in a significant gap in the range of the species; the population represents the only surviving natural occurrence of a species that may be more abundant elsewhere as an introduced population outside its historical range; or it differs markedly from other populations of the species in its genetic characteristics. If the Service determines that a population segment is both discrete and significant, then the population segment qualifies as a DPS and meets the ESA's definition of a "species" that may be classified as "endangered" or "threatened."

33. A species is "endangered" when it "is in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(6).

34. A species is "threatened" when it is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." *Id.* § 1532(20). The ESA does not define "foreseeable future." The Service's regulations at the time of the not-warranted finding, however, interpreted the term to "extend[] only so far into the future as the Services can reasonably determine that both the future threats and the species' responses to those threats are likely." 50 C.F.R. § 424.11(d) (2023).[1] The Service determines "the foreseeable future on a case-by-case basis, using the best available data and taking into account considerations such as the species' life-history characteristics, threat-projection timeframes, and environmental variability." *Id.*

35. The Service must list a species, including a DPS, as endangered or threatened based on threats throughout all *or* in a "significant portion" of the DPS's range. The question of

[1] The ESA's implementing regulations were amended on April 5, 2024. 89 Fed. Reg. 24300, 24335 (Apr. 5, 2024). The term "foreseeable future" is now defined to "extend[ed] as far into the future as the Services can make reasonably reliable predictions about the threats to the species and the species' responses to those threats." 50 C.F.R. § 424.11(d) (2024).

whether a species is endangered or threatened "throughout all" of its range is separate and distinct from the question of whether a species is endangered or threatened in a "significant portion of its range."

36. By directing the Service to list species that are endangered or threatened in a significant portion of their range, "Congress consciously moved away from the weaker predecessor statutes" and the "new definition's expansion to include species in danger of extinction 'in any portion of its range' represented a significant shift in the definition [from previous law] which consider[ed] a species to be endangered only when it is threatened with worldwide extinction." *Nat'l Wildlife Fed'n v. Norton*, 386 F. Supp. 2d 553, 566 (D. Vt. 2005).

37. In making listing determinations, the Service must assess five statutory categories of threats, also known as "listing factors," which are: "(A) the present or threatened destruction, modification, or curtailment of [the species'] habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence." 16 U.S.C. § 1533(a)(1). The Service must list the species if it meets the definition of "endangered" or "threatened" because of "any one or a combination of" the five listing factors. 50 C.F.R. § 424.11(c); *see* 16 U.S.C. § 1533(a)(1). The Service must also explain why the historic loss of a species' range and the current threats to all or a signification portion of a species' current range do not leave the species in danger of extinction now or in the foreseeable future.

38. The Service must make listing determinations "solely on the basis of the best scientific and commercial data available[.]" 16 U.S.C. § 1533(b)(1)(A). This means that the Service cannot invoke scientific uncertainty to justify its refusal to list a species as "endangered"

or "threatened." Instead, the Service must consider the available data, even if that information does not provide absolute certainty.

39. A species does not receive any protections under the ESA until it is listed as endangered or threatened. Once listed, however, species are afforded numerous protections. For example, Section 4 of the ESA requires the Service to designate areas that are "essential to the conservation of the species" as "critical habitat," and to develop and implement recovery plans. *Id.* §§ 1533(a)(3), (f); 1532(5). Section 7(a)(2) requires all federal agencies to consult with the Service to ensure their actions are not "likely to jeopardize the continued existence" of listed species or "result in the destruction or adverse modification" of their critical habitat. *Id.* §1536(a)(2). Section 9(a)(1)(B) makes it unlawful to "take" any endangered species, which means no person can "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" an individual of the species without first receiving authorization from the Service. *Id.* §§ 1532(19), 1538. Thus, listing is the crucial first step in the ESA's system of species conservation and recovery.

40. An interested person may submit a petition to the Service to list a species as endangered or threatened. *Id.* § 1533(b)(3)(A); 50 C.F.R. § 424.14(a). If the Service finds that the petition "presents substantial scientific or commercial information indicating that the potential action may be warranted[,]" 16 U.S.C. § 1533(b)(3)(A), the Service must conduct a "status review" of the species, *id.* § 1533(b)(1)(A). Then, within 12 months of receiving the petition, the Service must make one of three findings: (1) the petitioned actions is "warranted"; (2) the petitioned action is "not warranted"; or (3) the petitioned action is warranted, but listing is presently "precluded" by other proposals to list, delist, or reclassify the status of listed species. *Id.* § 1533(b)(3)(B)(i)-(iii).

41. If the Service finds that listing the species is "warranted," it must promptly publish in the Federal Register a "general notice and the complete text of a proposed regulation" listing the species as endangered or threatened. *Id.* § 1533(b)(3)(B)(ii).

42. If the Service finds that listing the species is "not warranted," that finding must be published in the Federal Register and is subject judicial review. *Id.* § 1533(b)(3)(B)(ii), 1533(b)(3)(C)(ii).

43. If the Service issues a "warranted-but-precluded" finding, that finding also must be published in the Federal Register and is subject to judicial review. *Id.* A species that receives a warranted-but-precluded finding is classified as a "candidate" for listing and given a "listing priority number," *see* Endangered Species Listing and Recovery Priority Guidelines, 48 Fed. Reg. 43,098, 43,102–03 (Sept. 21, 1983), and the Service must reassess the status of such candidate species annually. 16 U.S.C. §1533(b)(3)(C)(i); 50 C.F.R. § 424.14(h)(3).

Administrative Procedure Act

44. Under the APA, a reviewing court "shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). The APA supplies the standard of review for the not-warranted finding at issue here.

45. An agency action is "arbitrary and capricious" and must be "set aside," *id*., when it relies on factors which Congress did not intend for it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation for its decision counter to the evidence before the agency.

FACTUAL BACKGROUND

The Red Tree Vole

46. The red tree vole is a small arboreal rodent that spends most of its life in the canopies of conifer trees. They generally measure less than nine inches in length and have fur that ranges from brownish-red to orangish-red.

Photo by Patrick Wright

47. Red tree voles are endemic to the humid, coniferous forests of western Oregon and northwestern California. The Oregon Coast DPS's range—bounded by the Willamette River Valley on the east, the Siuslaw River on the south, the Pacific Ocean on the west, and the Columbia River on the north—encompasses two distinct vegetation zones: the western hemlock vegetation zone, which is dominated by Douglas-fir forests; and the Sitka spruce vegetation zone, which is dominated by Sitka spruce and western hemlock forests.

48. The red tree vole is one of the few mammals that are adapted to a diet of conifer needles. Using its teeth, a red tree vole strips the unpalatable resin duct from the needle and eats the remainder.

49. The location of the resin duct is different for Douglas-fir, western hemlock, and Sitka spruce trees. Due to this, red tree voles are adapted to forage on the tree species native to their respective vegetation zones, and the Oregon Coast DPS contains the only red tree voles uniquely adapted to consume western hemlock and Sitka spruce needles rather than Douglas-fir needles. Researchers have observed that red tree voles adapted to a diet of western hemlock will starve to death before resorting to eating readily available Douglas-fir needles. This suggests that learned foraging behaviors limit the red tree vole's ability to shift its diet from its preferred trees to other tree species.

50. As an old-growth obligate, red tree voles rely on complex structural characteristics found primarily on large, late-successional (80-200 years old) and old-growth (>200 years old) (collectively referred to as "old forest") conifer trees to nest successfully. Using twigs, discarded resin ducts, fecal pellets, lichens, and conifer needles, red tree voles build their nests on large branches, broken-tops, witch's brooms, or other supportive structures. While red tree voles have been observed to nest in grand fir, Pacific yew, and non-conifers such as bigleaf maple and golden chinquapin, they prefer Douglas-fir, Sitka spruce, and western hemlock.

51. Uniquely adapted to an arboreal life, the red tree vole spends nearly all its time within tree canopies and depends on the interconnected branches typically found in old forests to move between trees. Having evolved in such conditions, red tree voles have small home ranges that encompass the nest tree and a few nearby trees.

52. Sub-adult red tree voles seldom venture far from their natal nests to establish new territories. Red tree voles disperse an average of 56 meters from their natal nests with some venturing as little as three meters. The longest known dispersal of a sub-adult red tree vole is 340 meters, about two-tenths of a mile, and that red tree vole, a male, took 40 days to complete the journey.

53. Due to small home ranges and short dispersal distances, red tree voles do not readily colonize new areas. Instead, red tree vole populations expand incrementally, over many generations. It can take decades or longer for red tree voles to establish new populations. For instance, red tree voles have still not recolonized portions of the Tillamook Burn area which burned 1,420kms^2 of the Oregon Coast DPS's historic range from 1933–1951.

54. Due to this limited dispersal capability, as well as their reticence to descend to the ground, red tree voles are extremely vulnerable to habitat fragmentation and isolation. Even small disturbances to red tree vole habitat can greatly decrease connectivity for the species.

55. The Oregon Coast DPS's old forest habitat was reduced by more than 80 percent from 1911 to 2015. The systematic liquidation of the region's ancient forests, as well as wildfires, road construction, and development, have reduced the average "patch size" of red tree vole habitat within the DPS by a staggering 98 percent.

56. Prior to European settlement, old-growth forests in the Oregon Coast Range occurred in patches larger than a million acres. Today, the largest remaining old-growth patch is a mere 1,600 acres with the landscape now dominated by clearcuts and young forest largely unsuitable for the red tree vole.

57. Private and State timberlands—where clearcut logging is the predominant management, with clearcutting rates nearly three times higher on private lands than federal lands

between 1972 and 1995—cover approximately 81 percent of the range of the Oregon Coast DPS and have been extensively logged in recent decades.

58. Remaining blocks of old forest within the Oregon Coast DPS's range, which are much reduced in size (>1,000 acres), are primarily restricted to the small fraction of the range covered by Federal lands. However, the majority of the remaining habitat blocks are separated by distances exceeding the dispersal distance of red tree voles.

59. Federal lands within the Oregon Coast DPS occur in two widely separated clusters. One of these clusters encompasses much of the southern portion of the Oregon Coast DPS's range south of U.S. Highway 20, while the second cluster is located north of Highway 20, primarily between Lincoln City and Tillamook. However, red tree voles are considered uncommon and are sparsely distributed in the area within the DPS north of Highway 20. These two blocks are separated by private and State lands lacking in suitable habitat for the red tree vole. The Service thus recognized that "there is little redundancy" for red tree vole populations within the DPS, and "loss of either cluster" to wildfire or other stochastic events would result in the DPS being "highly vulnerable to extirpation." 2016 species assessment and listing priority assignment form at 57 ("2016 species assessment form").

60. Several peer-reviewed studies have reaffirmed the threats facing the red tree vole—and the Oregon Coast DPS specifically—clearly and repeatedly reaching the primary conclusions that: old forest is the most important predictor of red tree vole habitat suitability; the current extent and distribution of old forest within the Oregon Coast DPS's range is inadequate and too isolated to provide for the long-term persistence of the DPS; timber harvest and wildfire continue to result in declines in habitat for Oregon Coast DPS and threaten the DPS's viability;

and that protections for the DPS's habitat are lacking on private lands that make up 69 percent of the DPS's range.

61. These studies repeatedly and consistently state that the long-term persistence of the Oregon Coast DPS depends on increased habitat connectivity. For example, Lesmeister et al. 2016 stated that "[r]etaining or building connectivity between isolated old forest habitat patches will be critical to continued persistence of tree voles[,]" and that "[u]nder current management, the potential for broad recovery of old forest in this area is doubtful, and thus without significant conservation efforts tree vole population recovery is improbable." Lesmeister et al. 2016 at 14–15.

62. Likewise, based on extensive modeling of Oregon Coast DPS's existing habitat, Linnell et al. 2017 concluded that "given the rarity of existing patches of old forest and that even small reductions of 0.8% and 1.4% within the current study area dramatically increased distance to nearest patch, tree voles are likely to remain vulnerable to extirpation in areas of the distinct population segment, especially north of the Nestucca River." At 6.

63. As a result, Linnel et al. 2017 noted that "long-term-persistence of tree voles likely depends on what occurs in what is now young forest[,]" Linnell et al. 2017 at 8, because the conservation of potential connectivity habitat in young forests *could* connect currently isolated populations of red tree voles, but Linnell & Lesmeister 2019 emphasized that young forest adjacent to old forest habitat would only alleviate the lack of connectivity *if* conservation measures, "involv[ing] comprehensive land management plans, and substantial coordination and participation from a wide range of forest managers," were enacted to maintain such habitat but that such measures are not currently in place and there is currently no evidence of "gene flow occurring" through such habitats. Linnell & Lesmeister 2019 at 574. Linnel et al. 2017 also noted

that these efforts "may be particularly important because large wildfires that can eliminate large blocks of suitable habitat are predicted to become more frequent and may be more likely to eliminate large reserves of old forest on federal lands." *Id.* at 9.

64. Linnell et al. 2023 assessed tree vole habitat trends from 1986–2022, finding that habitat declined by 65 percent on the North Coast due to timber harvest. Reflecting the lack of regulatory protections on private lands, loss of habitat since 2006 has been concentrated on these lands with losses greater than 50 percent compared to "slight increases" on federal lands. *Id* at 8

65. Based on the red tree vole's "strong association with old forest," "scarcity within historic disturbance footprints," and "relatively limited geographic range," Linnell et al. 2023 anticipated that red tree voles will remain "a species of conservation concern[,]" with the greatest concern being for the Oregon Coast DPS. *Id.* at 1, 7. The authors expressed particular concern that "[w]here federal lands are isolated," as is the case for the Oregon Coast DPS, "broad contraction to the federal lands footprint could increase the risk that one or several stochastic events such as large fires eliminate or isolate populations." *Id.* at 7.

66. Of particular note, Gaines et al. 2023 conducted a comprehensive "species viability evaluation" for the red tree vole to determine "whether ecological conditions are likely to support a viable and persistent population of red tree voles over the long term under existing management plans." Gaines et al. 2023 at 3.

67. Gaines et al. 2023 modeled habitat suitability for each watershed within the red tree vole's range to contribute to the viability of the species by assessing habitat quality and the potential loss of habitat from timber harvest and wildfires. Gaines et al. 2023 at 6. Gaines et al. 2023 also developed a "viability outcome model" to estimate the probability of each of the red tree vole's ecoregions (Coast Range, Cascades, and Klamath Mountains) to support a sufficiently

abundant and well-distributed red tree vole population by assessing abundance, habitat connectivity, and habitat distribution.

68. To assess the threat of habitat loss from timber harvest, Gaines et al. 2023 assigned levels of protection based on land ownership and land management, ranging from protective (no timber harvest) to non-protective (timber harvest with few restrictions). *Id.* at 9. Potential wildfire risk was assessed based on fire regime data and modeling burn probability from the Pacific Northwest quantitative risk assessment, allowing an assessment of both fire severity and probability for each patch of habitat within a watershed. *Id.* at 9–10.

69. Gaines et al. 2023's analysis found that "current habitat capability for red tree voles within the Coast Range ecoregion was 26% of its historic capability[,]" with the majority of watersheds within the ecoregion having very low or low viability. *Id.* at 16–17. The authors found that while some subpopulations may be self-sustaining, the red tree vole was likely not broadly distributed across the Oregon Coast DPS's range and that there was a low probability of connectivity between populations, "thereby increasing the potential for extirpations within these isolated areas." *Id.*

70. Gaines et al. 2023 also noted that while "[h]ighly clustered large forest patches provide important habitat for [the red tree vole] in old forests … these patches are also susceptible to large, severe, stochastic events such as wildfires." *Id.* at 20. Additionally, "[t]he ability of these habitat conditions to absorb these events has been greatly reduced[,]" and the risk of wildfire "is likely to increase considerably over time as climate change results in increases in the frequency of large, high severity wildfires." *Id.*

71. Ultimately, Gaines et al. 2023 found that "conditions that influenced viability outcomes for red tree voles in the Coast Range ecoregion showed a low abundance and isolation

of suitable environments, indicating a considerable reduction in the current range of the red tree vole compared to historical conditions," and supporting a conclusion that "the North Oregon Coast DPS of the red tree vole is in danger of extinction in the foreseeable future (i.e., within 60 years)." *Id.* at 3, 19–21.

THE OREGON COAST DPS'S LISTING HISTORY

72. Recognizing the threats facing the Oregon Coast DPS, on June 18, 2007, the Center and others petitioned the Service to list the "dusky tree vole" as an endangered or threatened subspecies of the red tree vole, or, alternatively, to list the North Coast population of the red tree vole as an endangered or threatened DPS, under the ESA.

73. On October 13, 2011, the Service determined that the Oregon Coast DPS warranted listing, but that its immediate list was precluded by higher priorities. 76 Fed. Reg. 63,720, 63,753–63,756 (Oct. 13, 2011). The Service found the Oregon Coast population of the red tree vole constituted a DPS because it is genetically distinct from individuals in the rest of the species' range, and because the loss of the population would create a significant gap in the species' range and result in the loss of the unique Sitka spruce and western hemlock foraging behavior. *Id.* at 63,728–63,733.

74. Following its 2011 warranted-but-precluded finding, the Service reaffirmed its finding that the Oregon Coast DPS warranted listing as an endangered or threatened DPS six times, in 2012, 2013, 2014, 2015, 2016, and 2019. 77 Fed. Reg. 69,994, 70,012 (Nov. 21, 2012); 78 Fed. Reg. 70,104, 70,118 (Nov. 22, 2013); 79 Fed. Reg. 72,450, 72,462 (Dec. 5, 2014); 80 Fed. Reg. 80,584, 80,595 (Dec. 24, 2015); 81 Fed. Reg. 87,246, 87,256 (Dec. 2, 2016); 84 Fed. Reg. at 54,751 (Oct. 10, 2019). Each time, however, the Service determined that its immediate listing was precluded by higher priority listings and it received no protection under the ESA.

75. In these findings, the Service repeatedly recognized that the Oregon Coast DPS warranted listing because of numerous threats, including the historic and ongoing loss of its old-growth forest habitat—largely from timber harvest and wildfire—resulting in fragmented, isolated, and unconnected populations. It also found that existing regulatory mechanisms on private and State lands, which make up 81 percent of the DPS's range, were effectively non-existent on private lands and ineffective on State lands which were mostly managed for continuing timber harvest. Conversely, the Service found the old forest habitat that remained on federal lands was insufficient to ensure the Oregon Coast DPS's continued survival because even projected habitat gains on federal lands were likely insufficient to offset historic and ongoing habitat loss and fragmentation. The Service also found that wildfire posed an existential threat to the DPS with the possibility of eliminating even the largest blocks of remaining habitat on federal lands; a possibility becoming more likely as climate change increased the likelihood of a catastrophic large fire.

76. On December 19, 2019, however, the Service abruptly changed course and found that the Oregon Coast DPS did *not* warrant protection as an endangered or threatened species. 84 Fed. 69707, 69709–10 (Dec. 19, 2019).

77. The Service's 2019 not-warranted finding reiterated many of the Service's previous conclusions concerning the status of the Oregon Coast DPS, acknowledging that it had "lost viability over the past 100 years" primarily because of habitat loss from timber harvest and wildfire. 2019 Species Status Assessment ("SSA") at 92. It also continued to find that the Oregon Coast DPS is "especially vulnerable to the effects of [habitat] isolation and fragmentation due to their small home ranges and limited dispersal capabilities" resulting in "a lack of gene flow sufficient to maintain diversity and evolutionary potential within the

population," "inbreeding depression, reduced fitness, [genetic] bottlenecks, deleterious mutations, and genetic drift." *Id.* at 43. The Service additionally found that many areas containing potential habitat, but no known red tree voles, were unlikely to be "recolonized due to the distance between habitat fragments and the short-distance dispersal of the species, leading to local extirpation and further isolation of the remaining clusters . . . ." *Id.* at 44–45.

78. Despite their own conclusions about the vulnerability of the Oregon Coast DPS, the Service's change in position was premised on a finding that two "habitat clusters" were large enough to support red tree vole populations. *Id.* at 67. Known as the "Nestucca Block" and "South Block," these two habitat clusters contain relatively higher concentrations of federal lands and thus greater proportions of suitable habitat.

79. However, the 2019 SSA acknowledged that even these two habitat clusters suffered from habitat loss and fragmentation. Indeed, the Service pointed out that nearly half (about 46 percent) of the South Block, the larger of these two habitat clusters, consists of private lands, where "habitat is much more fragmented" and where "management over time may [further] fragment" the cluster, "effectively reducing the size of South Block and splintering it into smaller clusters." 2019 SSA at 88.

80. As in past findings, the 2019 SSA recognized that wildfire could result in "loss of either or both of these habitat clusters," *id.* at ii, with the Nestucca Block "small enough that it could be completely consumed by a single fire event typical of historic wildfires." *Id.* at 65, 74. Moreover, the 2019 SSA recognized that the risk of wildfire within the Oregon Coast DPS's range was increasing with climate change, as "it is expected that weather conditions conducive to producing past large-scale wildfires will increase with predicted climate change." *Id.* at ii, 58.

Still, the Service concluded that the Oregon Coast DPS did not warrant listing because the Service found the threat of wildfire allegedly uncertain.

81. The Center filed a complaint challenging the 2019 not-warranted finding on March 25, 2021. *Ctr. for Biological Diversity, et al. v. U.S. Fish and Wildlife Service, et al.*, 3:21-cv-455-HZ (D. Or.), Complaint, ECF 1. After filing its opening motion for summary judgment on October 29, 2021, *id.* at ECF 27, the Center and the Service reached a settlement agreement in which the Service found it "prudent" to reconsider its 2019 not-warranted finding and develop a new 12-month finding. *Id.* at ECF 35; *see also* Order Granting Stipulated Settlement Agreement, ECF 36.

The Challenged Agency Action: The Service's 2024 Not-Warranted Finding

82. On February 6, 2024, the Service again concluded that listing the Oregon Coast DPS was not warranted. 89 Fed. Reg. 8137. The 2024 not-warranted finding was supported by a Species Assessment and Listing Priority Assignment Form ("2024 species assessment form"), an updated SSA ("2024 SSA"), and a memorandum comparing the Service's earlier findings that listing is warranted with the Service's 2019 and 2024 not-warranted decisions ("2024 comparison memo").

83. The Service stated that most of the conclusions underlying its prior findings that the Oregon Coast DPS warranted listing remained the same, including that: 1) there has been a historical decline in the Oregon Coast DPS and its habitat due largely to logging and wildfire; 2) timber harvest has and continues to modify or remove habitat, primarily on non-federal lands; and that 3) habitat is and will continue to remain fragmented and isolated.

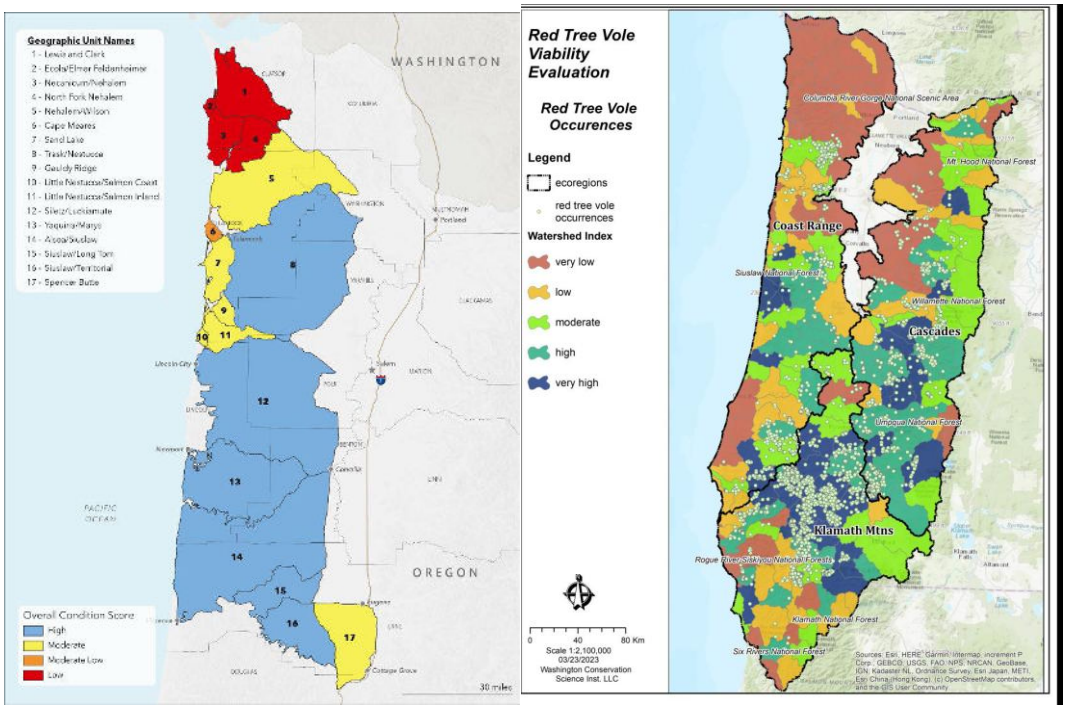
84. The primary reason the Service gave for its change in position was that the Service now believes that sufficient habitat exists across the Oregon Coast DPS's to maintain adequate resiliency and redundancy to avoid extinction.

85. To support their not-warranted determination, the Service identified 52 "population areas," made up of "habitat blocks" of patches of modeled habitat, which it then grouped into 17 "geographic units." Geographic units were derived by dividing the DPS by features which are likely strong filters or obstacles to red tree vole movement (rivers and highways).

86. The Service then estimated each population area's resiliency—their ability to sustain populations through the natural range of favorable and unfavorable conditions—not by surveying for red tree voles directly or by gathering data on the abundance and extent or sizes of populations or subpopulations within the DPS, but instead by *estimating* their potential population size based on how much habitat was available, as well as their potential connectivity to other populations areas, both within and between geographic units.

87. Despite defining the geographic units based on strong barriers to red tree vole movement—i.e., barriers red tree voles were unlikely to ever cross—the Service assigned a connectivity rating of "high" if the population areas on either side of a geographic unit boundary are connected by the same habitat block. For connectivity between population areas, the Service assigned populations within 2 kilometers ("km") of each other and separated by forested lands as having a "high" connectivity rating, while populations greater than 2 kms from each other or less than 2 kms but for which the area in between was not forested as having a "low" connectivity rating.

88. Geographic units were assigned the highest resiliency rating of *any one* given population area within the geographic unit. This skewed the results by classifying large portions of the Oregon Coast DPS's as having high resiliency despite most of the particular geographic units having no red tree voles at all or population areas in low condition. This effect can be clearly seen in the below maps. The left one is from the Service's 2024 species assessment form and shows the geographic units. The right one is from Gaines et al. 2023 and shows red tree vole viability by watershed. As is apparent, much of the area classified as high resiliency by the Service is classified as having very low, low, or moderate viability by Gaines et al. 2023.



81. The Service's own data also demonstrates how assessing geographic units' resiliency based on the highest rating of any one population area skews the Service's ultimate conclusions. The Siletz/Luckiamute geographic unit, for example, is comprised of 14 population areas. 11 of the population areas within the geographic unit received a low resiliency rating when assessing their current status, yet the geographic unit received a high resiliency rating based

solely on two population areas with moderately high resiliency, South Block Luckiamute and Deadwood Mountain.

89. Based on this skewed analysis, the Service claims that currently "six geographic units in high condition make up 73 percent of the occupied geographic units." 2024 status assessment form at 24. By comparison, Gaines et al. 2023 found that the majority of the Oregon DPS's range had very low or low viability.

90. The Service then relied on this exaggerated status to minimize threats to the survival of the Oregon Coast DPS, claiming that "[r]edundancy is robust, with multiple large units with high or moderate resiliency distributed throughout most of the DPS," allowing it to "withstand catastrophic wildfires." *Id.* at 33.

91. Despite this conclusion, the Service acknowledged that "[p]rojected impacts of climate change are expected to increase the risk of large-scale wildfires," and that "[i]f a catastrophic fire were to occur at a scale consistent with the largest historical fires of the region, it could impact the entirety of even the largest of the geographic units within the DPS." *Id.* at 35. The Service brushes aside this concern with claims that such risk is "relatively low" and that "tree voles would likely recolonize burned areas as they have done in the past." *Id.* But, as noted by Linnell et al. 2023, "[r]ecruitment of old forest and subsequent recolonization by red tree voles and other low mobility species after high-severity disturbance can take centuries whereas old forest loss can happen rapidly."

92. Based primarily on its determination that 73 percent of the area contained in the geographic units is in high condition, the Service found that the Oregon Coast DPS is not currently in danger of extinction throughout all of its range and did not warrant listing as an endangered species.

93. Looking to the Oregon Coast DPS's future condition—relevant to the Service's finding of whether the DPS warrants listing as a threatened species—the Service looked at the effects of timber harvest on habitat fragmentation and isolation, as well as the effects of climate change.

94. Assuming that the Oregon Coast DPS's habitat would remain protected on federal lands and some State lands, the Service projected that red tree vole habitat would increase by approximately 20 percent by 2100 on Federal and State lands. However, private lands—which make up 69 percent of the Oregon Coast DPS—would continue to be harvested on short rotation schedules, precluding the development of red tree vole habitat.

95. Regarding climate change, the Service noted that "[m]ultiple models … show a complete or nearly complete loss of climatically suitable habitat for western hemlock and Sitka spruce within the DPS by the end of the 21st century[.]" 2024 SSA at 89. As a result, the Service found that "[i]t is plausible that either western hemlock, Sitka spruce or both, which are important to the coastal populations of tree vole, may be nearly or entirely lost from the DPS over a period of 60 years as the climate becomes increasingly unsuitable for those species[.]" *Id.* at 90.

96. The Service stated that it was difficult to predict how the threat of wildfire would impact the Oregon DPS. However, it noted that climate change is "expected to increase the risk of large-scale wildfires in Pacific Northwest forests[,]" "with a 50 to 70 percent increase from baseline [risk] (1971-2000) projected under" one future climate change scenario, *id.* at 91–92. The Service also noted that "past wildfires in the Oregon Coast Range have burned areas as large as 3,250km^2 (1,250mi^2), which is an area equivalent to all or substantive portions of the largest and most resilient [tree vole] geographic units. Consequently, it is *reasonably likely* that a stand-

replacing wildfire capable of impacting large areas of remaining tree vole habitat could occur within the analysis area." *Id.* at 93 (emphasis added).

97. Despite these threats, the Service determined that—even with the projected extirpation of several geographic units and an overall decline in the Oregon Coast DPS's condition in the foreseeable future—the DPS would retain multiple geographic units in moderate condition such that it did not warrant listing as a threatened species.

98. The Service also found that the Oregon Coast DPS did not warrant listing as an endangered or threatened species in a significant portion of its range.

99. It did so by allegedly "identifying portions of the range where the biological status of the species may be different from its biological status elsewhere in the range." 2024 status assessment form at 36. The Service stated that it focused "on portions of the species' range that contribute to the conservation of the species in a biologically meaningful way[,]" *id.*, and "considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction now or likely to become so in the foreseeable future in that portion[,]" *id.* at 36–37.

100. Ultimately, it analyzed three portions of the Oregon Coast DPS's range as potentially contributing to the conservation of the DPS in a biologically meaningful way: (1) geographic units 1–4; (2) geographic units 12 and 17; and (3) the Sitka spruce vegetation zone. The Service did not consider whether State and private lands make up a significant portion of the Oregon Coast DPS's range or contribute to the DPS's conservation in a biologically meaningful way—despite private and State lands making up 81% of the entire range.

101. The Service identified the Sitka spruce vegetation zone along the Oregon Coast "as a portion of the DPS that in the future may decline into a lower condition than the rest of the DPS due to vegetation shift caused by climate change." *Id.* at 38.

102. "The Sitka spruce vegetation zone is the only part of the DPS where spruce and hemlock are currently more common than Douglus fir," in which red tree voles are uniquely adapted to feed on spruce and hemlock. *Id.*

103. The Service noted that models of vegetation shift predicted potential total loss of spruce and hemlock within the red tree vole's range due to climate change, and as a result, the Service found that "this portion of the range has a different status (threatened) than the rest of the range." *Id.*

104. The Service therefore considered the significance of the Sitka spruce zone to the Oregon Coast DPS.

105. However, the Service asserted that "there is … no indication that the Sitka spruce habitat … serves any species function or benefit to the DPS as a whole[,]" and that "[w]hile the existence of the Sitka spruce zone supports a feeding behavior that contributes to representation for the DPS," the Service dismissed this by stating that "representation is only one of the three factors (along with resiliency and redundancy) that [the Service] assess[es] to determine the viability of the entire DPS." 2024 status assessment form at 39.

106. As a result, because the Sitka spruce vegetation zone allegedly "constitutes only a small portion of the entire DPS, and does not represent habitat of particularly high quality or special biological function relative to the remaining portions of the DPS[,]" although "the Sitka spruce zone may be at risk of becoming endangered in the foreseeable future (threatened), [the

Service] determined that it is not a biologically significant portion of the DPS[,]" and did not represent a significant portion of the Oregon Coast DPS's range. *Id.*

107. Thus, the Service determined the Oregon Coast DPS "is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range[,]" and did not warrant listing as either an endangered or threatened species. *Id.*

PLAINTIFFS' CLAIMS FOR RELIEF

First Claim for Relief

The Service Arbitrarily and Capriciously Determined the Oregon Coast DPS Does Not Warrant Listing as an Endangered or Threatened Species in Violation of the ESA and the APA

108. Plaintiffs re-allege and incorporate by reference the allegations set forth in the preceding paragraphs.

109. The Service "shall . . . determine whether any species is an endangered species or a threatened species" because of any one or combination of five listing factors. 16 U.S.C. § 1533(a)(1). When doing so, the Service must rely "solely on the best scientific and commercial data available." *Id.* § 1533(b)(1).

110. Under the APA, a reviewing court "shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

111. An agency action is "arbitrary and capricious" and must be "set aside," *id*., when it relies on factors which Congress did not intend for it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation for its decision counter to the evidence before the agency.

112. In making its not-warranted finding, the Service failed to address available scientific data demonstrating that the Oregon Coast DPS is in danger of extinction or is likely to become an endangered species within the foreseeable future throughout all of its range due to numerous historic and ongoing threats including habitat loss, habitat fragmentation, isolated populations, wildfire, climate change, and inadequate regulatory mechanisms.

113. The Service's not-warranted finding failed to meaningfully address the contradictory viability findings and overall conclusion regarding extinction risk contained in the comprehensive, peer-reviewed viability analysis of red tree voles conducted in Gaines et al. 2023, or the study's plainly stated conclusion that the Oregon Coast DPS is in danger of extinction in the foreseeable future.

114. Despite the Service's characterization of the 2024 SSA as a compilation of the best available science, the 2024 SSA makes only passing mention of Gaines et al. 2023 and does not address its contradictory viability findings or overall conclusion regarding extinction risk. Further, the Service arbitrarily concluded that 73 percent of the Oregon Coast DPS's geographic units are in high condition, without acknowledging Gaines et al. 2023's contradictory finding that the majority of the DPS has very low, low, or moderate viability, or explaining how it reconciled that contradictory finding.

115. Part of the reason for the Service's arbitrary overestimation of the Oregon Coast DPS's resiliency is due to the Service's decision—without explanation—to assess a geographic unit's resiliency based on the highest resiliency rating of *any one* given population area within the geographic unit. In doing so, the Service ignored its own more specific analysis of the resiliency of individual population areas.

116. Although the Service has some discretion to choose which expert data it relies upon, it must at least acknowledge that it is doing so. By not addressing the central aspects of Gaines et al. 2023 and other studies, which directly contradict the data on which the Service relied, or attempting to explain how the agency's approach was superior, the Service acted arbitrarily and failed to meet the ESA's best available science mandate in violation of the ESA, 16 U.S.C. § 1533, and the APA, 5 U.S.C. § 706(2).

SECOND CLAIM FOR RELIEF

The Service Arbitrarily and Capriciously Ignored the Best Available Science When Analyzing the Oregon Coast DPS's Connectivity to Other Population Areas in Violation of the ESA and the APA

117. Plaintiffs re-allege and incorporate by reference the allegations set forth in the preceding paragraphs.

118. The Service "shall . . . determine whether any species is an endangered species or a threatened species" because of any one or combination of five listing factors. 16 U.S.C. § 1533(a)(1). When doing so, the Service must rely "solely on the best scientific and commercial data available." *Id.* § 1533(b)(1).

119. Under the APA, a reviewing court "shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

120. An agency action is "arbitrary and capricious" and must be "set aside," *id*., when it relies on factors which Congress did not intend for it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation for its decision counter to the evidence before the agency.

121. The Service's analysis of the Oregon Coast DPS's connectivity between population areas—a primary basis for the agency's overall resiliency ratings and its conclusion

that the Oregon Coast DPS does not warrant listing as either an endangered or threatened species—is untethered from the best available science.

122. Lesmeister et al. 2016, Linnell et al. 2017, Linnell & Lesmeister 2019, Linnell et al. 2023, and Gaines et al. 2023 all state that the long-term persistence of Oregon Coast DPS depends on increased connectivity and that current Oregon Coast DPS populations and habitat areas are isolated and fragmented with little gene flow occurring amongst populations.

123. The Service purports to rely on some of these same studies in making its not-warranted finding. The Service, however, fails to acknowledge the central themes and findings of these studies and fails grapple with their plainly stated assertions that the majority of the Oregon Coast DPS's range is currently isolated and fragmented, and that improving connectively is essential to the Oregon Coast DPS's survival and will only be achieved if comprehensive land management planning and substantial coordination and participation from a wide range of forest managers occurs.

124. Demonstrating the Service's arbitrary analysis of connectivity, the longest documented red tree vole dispersal distance is 340 meters (1,115 feet). The 340-meter dispersal distance, however, is an outlier only observed in "a single instance." Linnell & Lesmeister 2019 at 571. The data otherwise suggests a maximum dispersal distance of "up to 75 meters." *Id.*

125. The Service's not-warranted finding fails to address this readily available, but inconvenient, quantified and peer-reviewed scientific information. Instead, the Service defined "connectivity potential within geographic units" when analyzing the Oregon Coast DPS's current condition as "high" if a population area was within 2 km of forested land from another population area. The Service's model thus rates population areas as having "high connectivity" up to a distance that is nearly *27 times* the generally accepted *maximum* dispersal distance.

126. The Service's ratings for connectivity between geographic units are similarly arbitrary where the agency assessed connectivity by assessing whether "habitat blocks" spanned the boundary of geographic units. If so, the Service defined the connectivity as "high" despite the Service's recognition that the "highways and rivers" it used to divide geographic units "represent a strong filter" to dispersal and connectivity. 2024 SSA at 66.

127. By not addressing the central aspects of these studies or the Service's own contrary findings, or attempting to explain how the agency's approach was superior or justified by the best available science, the Service's approach to assessing connectivity and the Oregon Coast DPS's resiliency is arbitrary and capricious and counter to the best available science in violation of the ESA, 16 U.S.C. § 1533, and APA, 5 U.S.C. § 706(2).

THIRD CLAIM FOR RELIEF

The Service Arbitrarily Downplayed the Risk of Wildfire in Violation of the ESA and APA

128. Plaintiffs re-allege and incorporate by reference the allegations set forth in the preceding paragraphs.

129. The Service "shall . . . determine whether any species is an endangered species or a threatened species" because of any one or combination of five listing factors. 16 U.S.C. § 1533(a)(1). When doing so, the Service must rely "solely on the best scientific and commercial data available." *Id.* § 1533(b)(1).

130. Under the APA, a reviewing court "shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

131. An agency action is "arbitrary and capricious" and must be "set aside," *id*., when it relies on factors which Congress did not intend for it to consider, entirely failed to consider an

important aspect of the problem, or offered an explanation for its decision counter to the evidence before the agency.

132. The Service arbitrarily downplayed the risk wildfire poses to the Oregon Coast DPS by claiming that "a single catastrophic wildfire event" is "very unlikely" to affect "the entire DPS[,]" 2024 species assessment form at 31, even while recognizing that any given unit is "vulnerable to substantial degradation or even extirpation depending on the fire's size and severity," *id.* at 30–31.

133. This ignores the best available science.

134. For instance, Linnell and Lesmeister 2019 noted that "[m]aintaining suitable conditions *outside of the current distribution* [of the Oregon Coast DPS] may be necessary to reduce risk of substantial loss of the population and habitat due to future large-scale disturbances or shifts in environmental conditions[,]" such as wildfires. Linnell and Lesmeister 2019 at 574.

135. Similarly, Gaines et al. 2023 found that "[a]n important consideration" for the Oregon Coast DPS's conservation "is the role that fire will play in affecting the few remaining large patches of habitat." Gaines et al. 2023 at 20. "[T]hese patches are … susceptible to large, severe, stochastic events, such as wildfires[,]" and "[t]he ability of these habitat conditions to absorb these events has been greatly reduced." *Id.* In addition, the risk from wildfire "is likely to increase considerably over time as climate changes results in increases in the frequency of large, high, severity fires." *Id.*

136. The Service itself, directly contradicting its ultimate not-warranted finding, noted that wildfire is "the greatest catastrophic event that may affect tree voles in terms of size and severity, resulting in an immediate loss of habitat that isolates remaining populations[,]" 2024 SSA at 45, and noted that such an event is "plausible," *id.* at 118, and "reasonably likely," *id.* at

93. It also noted that "even the largest units in the DPS are vulnerable to catastrophic, stand-replacing wildfires now, and will likely be more so in the future because of climate change." *Id.* As a result, "large-scale stand-replacing wildfire consistent with historical fire regimes in the Oregon Coast Range remains the greatest threat to [the Oregon Coast DPS]." *Id.* at 120.

137. The not-warranted finding also conflates the question of whether a single wildfire is likely to impact the *entire* DPS at once with the relevant question of whether wildfire poses a risk to the Oregon Coast DPS's continued survival because wildfire, of a similar size and nature of past wildfires within the DPS's range, is reasonably likely and could foreseeably result in significant population loss and leave remaining populations isolated and fragmented, such that the Oregon Coast DPS's continued viability is impacted.

138. The Service further errs in assuming that there could only be a single catastrophic fire event. This assumption is unwarranted, as evidenced by past major events. The Tillamook Burn, for example was a stand-replacing wildfire that burned over 1,200 km^2 (460 mi2) in 1933, followed by three more successive fires over the next 18 years for a combined total burn area of 1,400 km^2.

139. The Service also arbitrarily states it was "not able to project the probability of catastrophic events such as wildfire through time." 2024 comparison memo, p. 15. This overlooks readily available information quantifying this risk. Contrary to the Service's feigned uncertainty, the best available science shows that such fires are certain, even if the exact timing is not, and that "wildfires will occur again, as they are an inherent characteristic of these ecosystems." Reilly et al. 2022 at 1-20.

140. Gaines et al. 2023, for instance, estimated both fire severity and probability for the watersheds within the Oregon Coast DPS's range based on fire regime data and modeling burn probability.

141. The Service's not-warranting finding, however, failed to address Gaines et al. 2023's findings. And while the 2024 SSA purported to analyze each geographic unit's resiliency given fire risk, 2024 SSA at 119–120, the Service failed to incorporate these findings into their not-warranted finding, instead relying on their analysis of the Oregon DPS's future condition given assumptions about habitat capacity, hypothetical population density and size, connectivity, impacts from Swiss needle cast, and the potential loss of the Sitka spruce vegetation zone—but not wildfire.

142. The Service's not-warranted finding thus failed to provide a rational connection between the facts found and the choice made, ignored important aspects of the threat wildfire poses to Oregon Coast DPS, and ignored the best available science calling into question or refuting the agency's not-warranted finding.

143. Accordingly, the not-warranted finding violates the ESA, 16 U.S.C. § 1533, and is arbitrary and capricious, an abuse of discretion, and otherwise not in accordance with law, 5 U.S.C. § 706(2)(A).

FOURTH CLAIM FOR REFLIEF

The Service Arbitrarily Concluded that the Oregon Coast DPS is Not Threatened or Endangered in a Significant Portion of Its Range

144. Plaintiffs re-allege and incorporate by reference the allegations set forth in the preceding paragraphs.

145. The Service "shall . . . determine whether any species is an endangered species or a threatened species" because of any one or combination of five listing factors. 16 U.S.C. §

1533(a)(1). When doing so, the Service must rely "solely on the best scientific and commercial data available." *Id.* § 1533(b)(1).

146. A species is "endangered" when it "is in danger of extinction throughout all *or a significant portion of its range*." *Id.* § 1532(6) (emphasis added). A species is "threatened" when it is "likely to become an endangered species within the foreseeable future throughout all *or a significant portion of its range*." *Id.* § 1532(20) (emphasis added).

147. The Service must list a species, including a DPS, as endangered or threatened based on threats throughout all or in a "significant portion" of the DPS' range. The question of whether a species is endangered or threatened "throughout all" of its range is distinct from the question of whether a species is endangered or threatened in a "significant portion of its range."

148. Under the APA, a reviewing court "shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

149. An agency action is "arbitrary and capricious" and must be "set aside," *id*., when it relies on factors which Congress did not intend for it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation for its decision counter to the evidence before the agency.

150. In its not-warranted finding, the Service found that the Oregon Coast DPS does not warrant listing based on a significant portion of its range because no portion allegedly constituted a "significant" portion of the DPS's range.

151. When doing so, the Service entirely failed to consider whether the 81 percent of the Oregon Coast DPS's range found on State and private lands constitutes a significant portion of the DPS's range.

152. The Service elsewhere recognizes that red tree vole habitat has been largely eliminated from private lands and that what habitat does remain is fragmented and not adequately protected by regulatory mechanisms.

153. However, the Service never explains why private lands, the vast majority of the Oregon DPS's range on which they are no longer viable, are not a significant portion of its range.

154. The Service also erred when it determined that the projected loss of Oregon Coast DPS populations within Sitka spruce vegetation zone and the unique foraging behavior associated with it allegedly do not constitute a significant portion of the DPS's range. In doing so, the Service arbitrarily dismissed a portion of the Oregon Coast DPS's range that contributes to the DPS's viability in a biologically meaningful way.

155. For instance, in its designation of the Oregon Coast DPS as a valid DPS, the Service noted that the "Sitka spruce plant series is a unique ecological setting . . . because the plant series is extremely limited within the red tree vole range, and because of the relatively unique and inflexible foraging behavior tied to this plant series that may be indicative of ongoing speciation." 76 Fed. Reg. 63270, 63731. This area is also the "only portion of the red tree vole range where the consumption of western hemlock and Sitka spruce is the dominant foraging behavior." *Id.* This "potential evolutionary significance to the species" formed part of the Service's rationale for determining that loss of the North Oregon Coast DPS "would be of significance to the taxon as a whole." *Id.* at 63733.

156. Elsewhere in its not-warranted finding, the Service also noted that "[t]he most apparent form of representation" for the Oregon Coast DPS is the ability of red tree voles within the Sitka spruce vegetation zone to feed on western hemlock and Sitka spruce needles. 2024 species assessment form at 26. This led the Service to conclude that "[r]etaining tree vole

population areas within the narrow Sitka spruce vegetation zone *will be necessary* to maintain representation of this unique behavioral trait[,]"and that these populations "are important for maintaining ecological and behavioral representation for the DPS." *Id.* at 27. Further, "[t]he loss of red tree vole population areas from the contraction or loss of the Sitka spruce vegetation zone in the future would result in a decrease of representation for the DPS due to the likely loss of tree voles that demonstrate the specialized behavior that allows them to feed on Sitka spruce and western hemlock needles." *Id.* at 32.

157. The Service's not-warranted finding, however, dismisses the importance of the Sitka spruce vegetation zone in its significant portion of its range analysis, asserting that, while the unique, specialized behavior contributes to representation for the DPS, representation is only one of the three factors (along with resiliency and redundancy) assessed to determine the viability of the DPS, "the Sitka spruce vegetation zone constitutes only a small proportion of the entire DPS, and does not represent habitat of particularly high quality or special biological function relative to the remaining portions of the DPS." 2024 species assessment form at 39.

158. The Service's rationales contradict its own conclusions regarding the uniqueness and importance of the Sitka spruce zone. The Service cannot, on the one hand, recognize the importance of maintaining the Oregon Coast DPS's unique adaptation to the Sitka spruce vegetation zone for maintaining ecological and behavioral representation for the DPS and simultaneously dismiss it as only one of several factors regarding viability. Further, the Service admits that the Sitka spruce vegetation zone contributes to the species' redundancy as well when it elsewhere notes that redundancy is likely to be reduced in the future by the extirpation of occupied geographic units, including all six that occur in the Sitka spruce vegetation zone.

159. Similarly, the Service's statements about this "unique behavioral trait" cannot be squared with its assertion that this trait does not "represent habitat of … special biological function" relative to the rest of the DPS. *Id.*

160. Finally, the Service's assertion that the Sitka spruce zone constitutes only a small portion of the entire DPS is contradicted by the Service's own findings that 19 population areas are entirely within the Sitka spruce zone, 17 were in the western hemlock zone, and 16 are a mixture of both. In total, the Sitka spruce zone represents nearly one third of the Oregon Coast DPS's total range.

161. The Service's significant portion of its range analysis thus arbitrarily fails to consider whether the State and private land portions of the Oregon Coast DPS's range constitute a "significant portion of its range." It also arbitrarily contradicts the Service's own conclusions regarding the uniqueness of the Sikta spruce habitat and its potential evolutionary significance.

162. By failing to acknowledge this contradiction or explain why it was now reaching a different conclusion that dismisses the significance of Sitka spruce dwelling red tree voles to the Oregon Coast DPS, the Service ignored the best available science and reached an arbitrary conclusion in violation of the ESA, 16 U.S.C. § 1533, and the APA, 5 U.S.C. § 702(A).

REQUEST FOR RELIEF

THEREFORE, Plaintiffs respectfully request that this Court:

(1) Declare unlawful and set aside Defendants' 2024 not-warranted finding for further analysis and agency action consistent with this Court's decision;

(2) Remand the 2024 not-warranted finding to Defendants to conduct a new 12-month finding consistent with the law within 12 months of this Court's order;

(3) Award Plaintiffs reasonable attorneys' fees, costs, and expenses; and

(4) Grant Plaintiffs such further and additional relief as the Court may deem just and proper.

Dated: July 17, 2025

Respectfully submitted,

/s/ Ryan Adair Shannon
RYAN ADAIR SHANNON (OR Bar No. 155537)
CENTER FOR BIOLOGICAL DIVERSITY
P.O. Box 11374
Portland, OR 97211
Tel: 971-717-6407
rshannon@biologicaldiversity.org

Lead Counsel for Plaintiffs