



Utah Forest Health Highlights

2024

Introduction

A healthy forest maintains function, diversity, and ecological resiliency of its components, and provides essential ecosystem services such as recreation, water, carbon sequestration, food, air filtration, social and cultural values, timber and other forest products, as well as fish and wildlife habitat and biodiversity. Many forests throughout Utah are composed of dense stands that have age, size, structural and species composition indicative poor forest health conditions. Unhealthy forests are conducive to developing insect and disease issues. In other words, insect and disease issues are often the result of, not the cause of, poor forest health and are often precipitated by hot and dry conditions.

This report summarizes the impact of insect, disease, and abiotic disturbance agents on Utah's forested lands (Table 1) as determined by aerial detection surveys (ADS, USFS) and observations by Forestry, Fire and State Lands (FFSL) and Forest Health Protection (FHP) personnel. A more extensive report is available online <https://ffsl.utah.gov/forestry/forest-health/>.

Insect and Disease

In Utah, ADS survey area decreased by 9% in 2024 compared to 2023 (Table 3). Overall, damage from insect, disease, and abiotic agents decreased from about 27,900 damage acres (da; density of affected trees within a mapped area) in 2023 to 17,800 da in 2024. A reduction in bark beetle activity accounted for most of the decline in tree mortality, decreasing from 16,500 da in 2023 to 4,700 da in 2024. Of the bark beetles, fir engraver accounted for most of the decrease between 2023 and 2024, about 10,000 da. Subalpine fir decline also decreased about 1,500 da. Notable increases in spruce beetle (~500 da), balsam woolly adelgid (~1,000 da) (2024), and Marssonina leaf blight (~2,500 da) occurred in 2024.

Wind/Microburst

In June 2024, a microburst blew down approximately 125 acres of aspen, subalpine fir, and Engelmann spruce on the east side of the La Sal Mountains in Grand County. State Forest Health Specialists and State foresters are monitoring the situation and developing an action to respond to potential spruce beetle populations that could arise from the event.

Fire

For more detailed information on 2024 fire activity in Utah, visit:

https://ffsl.utah.gov/wpcontent/uploads/UtahWildfireSummary_Final-1132025-1.pdf.

Weather Impacts

Many of our damage-causing agents (DCAs) are affected by weather directly or indirectly. Weather conditions regularly fluctuate and 2023 and 2024 were better water years than the preceding three years when DCAs were causing increased tree mortality. However, a swing back toward hot, dry conditions will again stress trees, especially where unnaturally high density stand conditions exist or where range expansion of trees has occurred into marginal sites. In the long term, exhaustion of suitable hosts due to years of continued mortality may limit some damage agents (i.e., spruce beetle, fir engraver).

Table 1. Acres mapped, damage area, and county with the most damage acres for key damage-causing agents in Utah, 2024.

Damage Agent	Acres Mapped	Damage Area (ac)	County with Most Damage Acres
Balsam Woolly Adelgid	28,593	2,901	Wasatch
Fir Engraver	14,297	2,341	Sanpete
Subalpine Fir Decline	11,162	1,417	Sanpete
Western Spruce Budworm	10,866	5,375	Garfield
Spruce Beetle	10,037	964	Uintah
Pinyon Ips	4,182	330	Sevier
Marssonina Leaf Blight	4,213	2,537	Garfield
Douglas-fir Beetle	1,944	982	Sanpete
Mountain Pine Beetle	469	62	Tooele
Western/SW Pine Beetle	59	4	Grand
Total	85,822	16,913	

Figure 1. Aerial detection survey coverage bark beetle data for 2024.

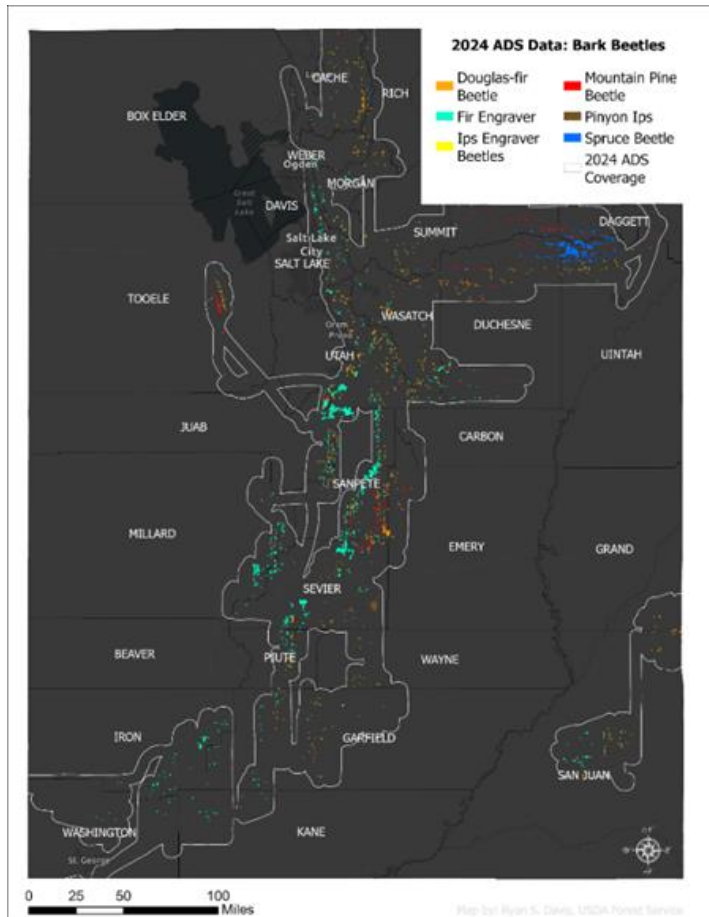
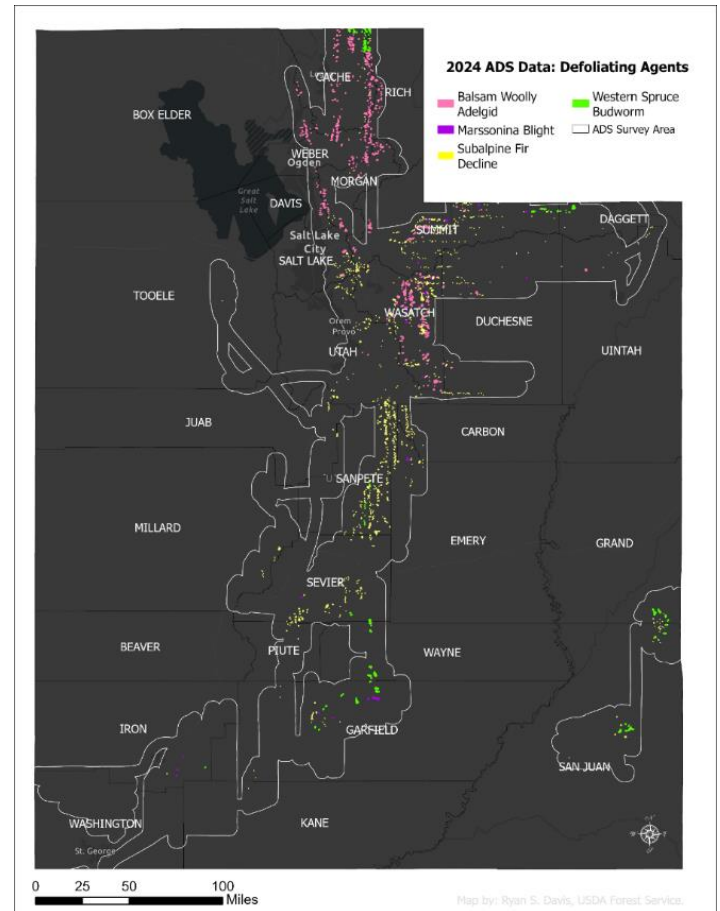


Figure 2. Aerial detection survey coverage defoliator data for 2024.



For More Information:



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