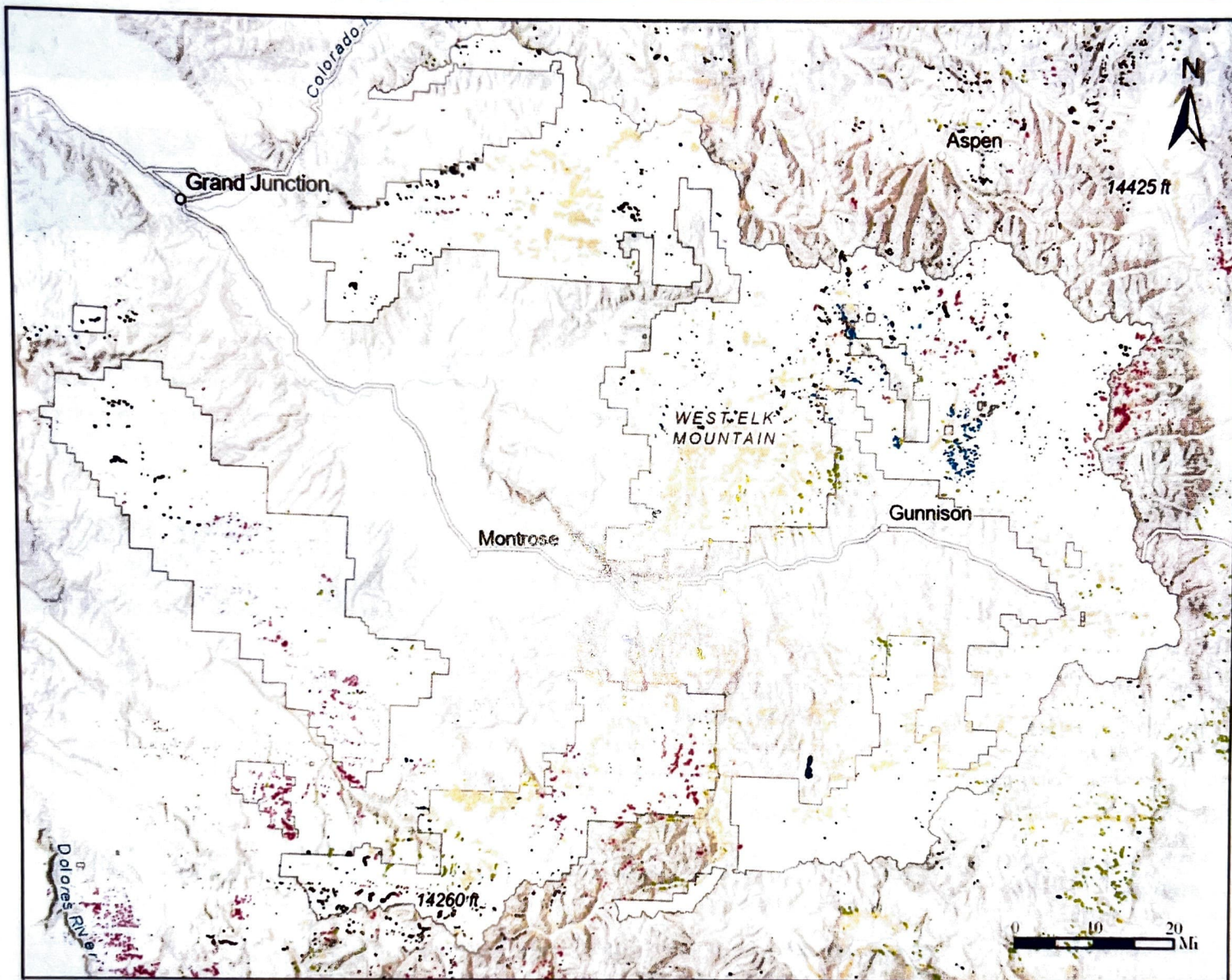


2024 Insect and Disease Survey of the GMUG National Forests



Due to the nature of aerial surveys, data on this map only provide rough estimates of location, intensity and the resulting trend information for agents detectable from the air. Many of the most destructive diseases are not detectable from aerial surveys. Data presented on this map should only be used as partial indicators of insect and disease activity and should be validated on the ground for actual location and causal agents. Shaded areas show locations where tree mortality or defoliation was apparent from the air. Intensity of damage varies and not all trees in shaded areas are dead or defoliated.

Aerial Detection Survey 2024

- | | |
|----------------------------|----------------------|
| ponderosa pine mortality | Douglas-fir beetle |
| aspen defoliation | fir engraver |
| western balsam bark beetle | pinyon ips |
| western spruce budworm | spruce beetle |
| | mountain pine beetle |

Gunnison Service Center Staff

GROUP LEADER/ENTO
BIOLOGICAL TECHNICIAN

JOHN NELSON
SUZANNE MARCHETTI

john.nelson3@usda.gov
suzanne.marchetti@usda.gov

PATHOLOGIST
ENTOMOLOGIST
ENTOMOLOGIST

BRADLEY LALANDE
AMY LOCKNER
MATT ETHINGTON

bradley.lalande@usda.gov
amy.lockner@usda.gov
matthew.ethington@usda.gov



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

GMUG NATIONAL FORESTS R2 FOREST HEALTH PROTECTION 2024 HIGHLIGHTS OF TREE MORTALITY AND OTHER DAMAGE FROM INSECTS AND DISEASES

PINE BEETLES

ALL PINES

- Pine beetles are expanding across the state with **4,500 acres** of mortality on the GMUG.
- Mountain pine beetles (2,100 ac) are inundating campgrounds in **Taylor Canyon** on Gunnison NF.
- Mortality (2,400 ac) is expanding on the Uncompahgre NF in ponderosa pine killed mostly by **roundheaded** and **southwestern** pine beetles.

FIR MORTALITY

WHITE AND SUBALPINE

- There are **5,400 acres** of scattered subalpine fir mortality on the GMUG.
- A **complex** of western balsam bark beetle, armillaria root disease, and age factors have lead to expansion of subalpine fir mortality.
- White fir continues to be attacked by **fir engraver** with 520 acres on the Uncompahgre NF.

16,400
ACRES of active
BARK BEETLES
74,700
ACRES of active
DEFOLIATION

SPRUCE BEETLE

ENGELMANN SPRUCE

- Spruce beetle acres have **stabilized** at 3,700 acres of mortality on the GMUG in 2024.
- Though there is less spruce beetle activity, each forest has mapped acres and potential for expansion.
- Areas east of Lake City and west of Crested Butte have the largest areas of recent mortality.

WESTERN SPRUCE BUDWORM

SPRUCE, FIRS, DOUGLAS-FIR

- Budworm has been chronic in Douglas-fir for over a decade. The levels in spruce-fir remained high for a second consecutive year.
- There were **68,000 acres** of active budworm mapped on the GMUG.
- Douglas-fir beetle has also been chronic, often overlapping with budworm. In 2024, 2,300 acres of active beetle were mapped on the GMUG.

SUDDEN ASPEN DECLINE

QUAKING ASPEN

- While stands of aspen continue to deteriorate, regeneration is plentiful in many areas, including in spruce stands opened up by bark beetles.
- Aspen defoliation continues to decrease on the GMUG down to **740 acres**.

FOREST HEALTH PROTECTION INFORMATION

WBB PROJECTS

2024 Funded Projects
GRD Verbenone \$12K
Telski Spruce Beetle \$10K

2025 GMUG Proposals:
GRD Verbenone \$12K
GRD CG spraying \$75K
Dave Wood thinning \$100K

UPCOMING TRAININGS

Hazard Tree Management & Forest Insect and Disease

For more information contact
bradley.lalande@usda.gov

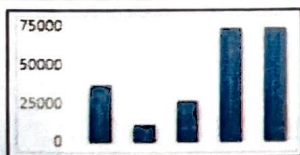
DOUGLAS-FIR BEETLE

Funded 2,300 MCH pouches to protect Douglas-fir in recreation sites on the Uncompahgre and Gunnison NFs.

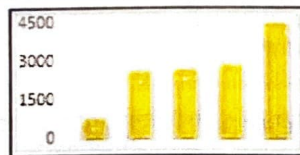
FOR MORE FHP INFORMATION



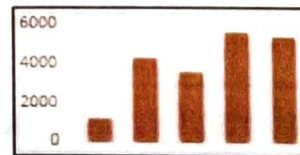
TREE MORTALITY AND DEFOLIATION SURVEY TRENDS 2019–2024*



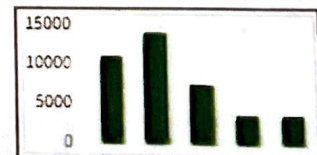
WESTERN SPRUCE BUDWORM
68,000 ACRES IN 2024



PINE BEETLE DAMAGE
4,500 ACRES IN 2024

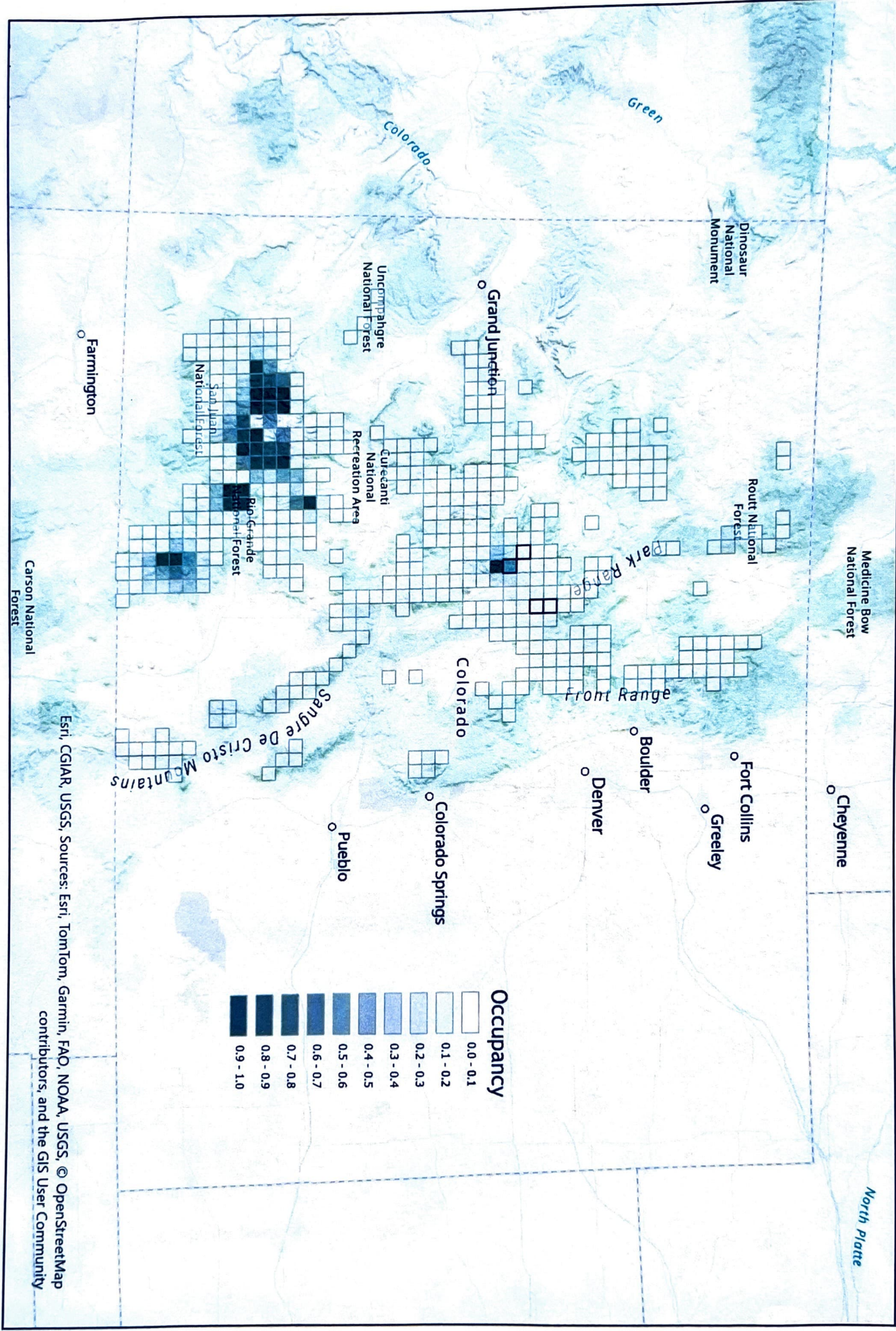


SUBALPINE FIR MORTALITY
5,400 ACRES IN 2024



SPRUCE BEETLE DAMAGE
3,700 ACRES IN 2024

*2020 data excluded from graphs as a result of limited aerial surveys due to the COVID-19 pandemic.



Esri, CGIAR, USGS Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community