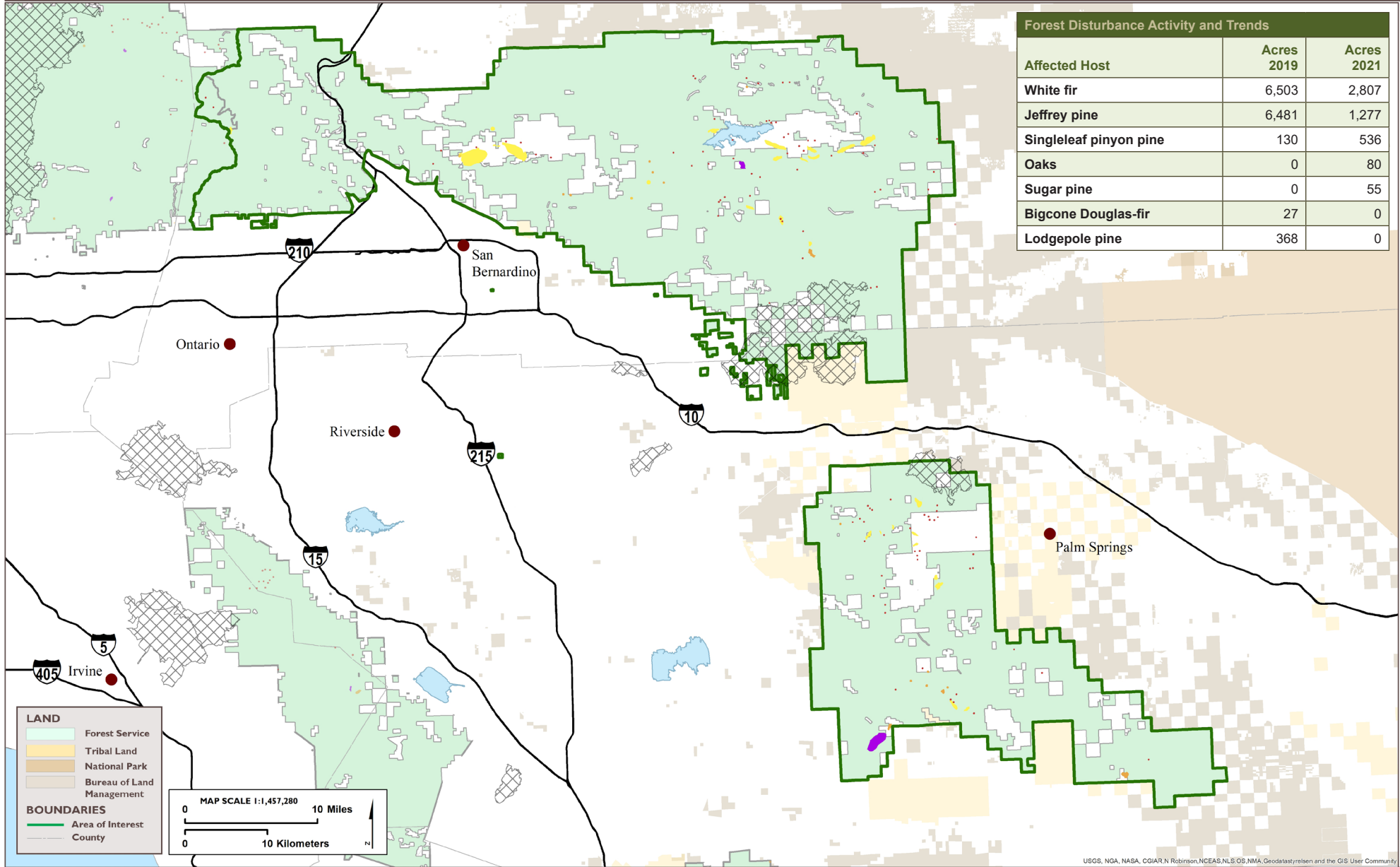




AERIAL DETECTION SURVEY, 2021 SAN BERNARDINO NATIONAL FOREST



Forest Disturbance Activity and Trends

Affected Host	Acres 2019	Acres 2021
White fir	6,503	2,807
Jeffrey pine	6,481	1,277
Singleleaf pinyon pine	130	536
Oaks	0	80
Sugar pine	0	55
Bigcone Douglas-fir	27	0
Lodgepole pine	368	0

LAND

- Forest Service
- Tribal Land
- National Park
- Bureau of Land Management

BOUNDARIES

- Area of Interest
- County

MAP SCALE 1:1,457,280

0 10 Miles

0 10 Kilometers

TREE MORTALITY
(dead trees per acre)

- Less than 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 35
- More than 35

TREE DAMAGE

- not mortality

MAJOR FIRES

- 2019 - 2021

USGS, NGA, NASA, CGIAR, N. Robinson, NCEAS, NLS, OS, NMA, Geodatastr/reisen and the GIS User Community

Highlights

Overall tree mortality decreased from an estimated ~34,000 dead trees across 14,000 acres to ~15,000 dead trees across 4,800 acres in 2021.

- White fir mortality decreased from approximately 21,000 dead trees across 6,500 acres in 2019 to ~8,700 dead trees across 2,800 acres in 2021.
- Jeffrey pine mortality decreased from ~12,000 dead trees across 6,500 acres in 2019 to approximately ~3,900 dead trees across 1,300 acres in 2021. Activity was most common around Big Bear Lake, especially to the southeast.
- Singleleaf pinyon pine mortality increased from ~130 dead trees across 400 acres in 2019 to approximately 1,100 dead trees across 530 acres in 2021 in and around Gocke Valley.
- Oak mortality, mostly attributed as unknown cause, increased from virtually no recorded mortality in 2019 to ~920 dead trees across 80 acres in 2021. One point of 2-5 trees southwest of Idyllwild was attributed to goldspotted oak borer (GSOB).
- Sugar pine mortality increased from an estimated 7 trees in 2019 to ~160 dead trees in 2021 primarily located east of Strawberry Valley.
- Bigcone Douglas fir mortality decreased from an estimated 310 dead trees across 30 acres in 2019 to approximately 10 trees recorded trees in 2021.
- Lodgepole pine mortality was not recorded in 2021, down from an estimated 320 dead trees across 370 acres in 2019.



Moderate Jeffrey pine mortality attributed to Jeffrey pine beetle (*Dendroctonus jeffreyi*) northeast of Little Thomas Mountain, San Bernardino National Forest.