

Forest Service

State & Private Forestry

FOREST HEALTH PROTECTION 2021 HIGHLIGHTS OF TREE MORTALITY AND OTHER DAMAGE FROM INSECTS AND DISEASES

423 million acres surveyed

SUDDEN OAK DEATH

OAK AND TANOAK

- New detections occurred in Oregon prompting quarantine expansion
- First detection in Oregon of the NA2 lineage in a forest, **bringing the total variants in the wild to three**

SOUTHERN PINE BEETLE

SOUTHERN PINES

- Northernmost trap detection occurred in southern Maine
- Mortality is scattered across the Southeastern United States

EMERALD ASH BORER

ASH

- Continues to spread to additional counties in infested States, but no new States in 2021
- Ash mortality is extensive in impacted natural forests and communities

MILLION ACRES with DEAD TREES 5.7 MILLION ACRES with OTHER TREE DAMAGE

5.8

RAPID 'ŌHI'A DEATH 'ŌHI'A

Ceratocystis lukuohia is one of two strains of fungi that cause ROD and accounts for roughly 90 percent of detections

• **New detections** in high-value native forests are reported each year

OAK WILT

OAK

- An **aggressive tree disease** of red oak species
- Actively spreading among oaks damaged or trimmed during April, May, or June each year

SPONGY MOTH HARDWOODS

- 2.5 million acres with defoliation reported
- 1.3 million acres is the most extensive defoliation ever documented in Michigan

FIR ENGRAVER

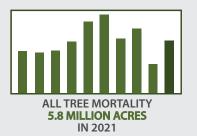
WESTERN FIRS

- Drought conditions increased fir mortality
- 1 million acres with tree mortality was reported

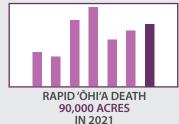
ACTIVITIES SUPPORTED BY FOREST HEALTH PROTECTION

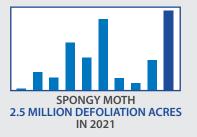
SUDDEN OAK DEATH	SOUTHERN PINE BEETLE	EMERALD ASH BORER	RAPID 'ŌHI'A DEATH	FIR ENGRAVER	SPONGY MOTH	OAK WILT
Detection survey, targeted treatments, and containment	Suppression of active infestations and thinning forests for prevention	Providing technical assistance and outreach	Detection survey, rapid response, sanitation, and resistance screening	Surveying, suppression, and developing management options	Eradication, suppression, and Slow the Spread Program	Detection, suppression, and developing management options

TREE MORTALITY AND DEFOLIATION SURVEY TRENDS 2012–2021



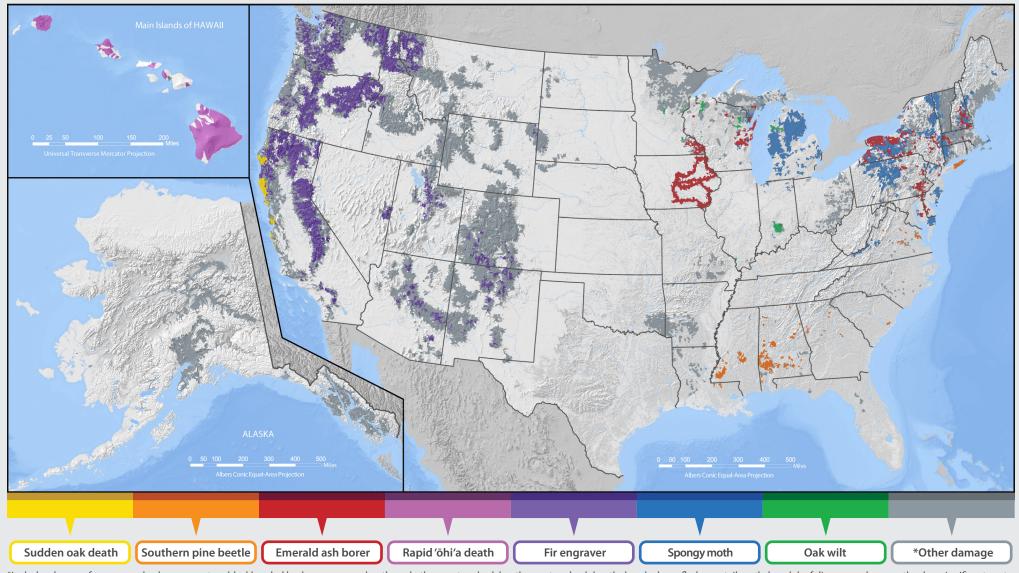
FIR ENGRAVER 1 MILLION ACRES IN 2021







2021 INSECT AND **DISEASE SURVEY** WATERSHEDS WITH TREE DAMAGE



*Includes damage from spruce budworm, western blackheaded budworm, spruce beetle and other western bark beetles, eastern larch beetle, hemlock sawfly, browntail moth, beech leaf disease, and many other less significant pests. USDA is an equal opportunity provider, employer, and lender.