CENTRAL & WEST TEXAS FORESTLANDS, 2014

TEXAS A&M FOREST SERVICE

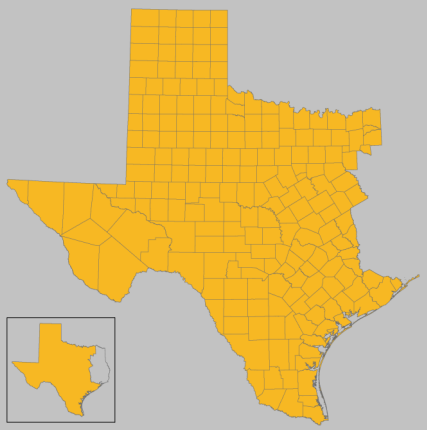
## FOREST INVENTORY AND ANALYSIS

Texas A&M Forest Service works in partnership with the U.S. Forest Service to inventory forestlands in the 211 counties of Central & West Texas. This joint effort is known as Forest Inventory and Analysis or FIA. Every year since 2004, highly-trained foresters and resource specialists have collected data from approximately 2,500 plots placed throughout the region. Data collected are used to estimate acres of forestland, numbers and types of trees, and the volumes and weights of those trees. This report presents results for the 2014 inventory, which is based on data collected from 2005 through 2014.

### IN THIS REPORT



### REGION



Area of Detail

## HIGHLIGHTS

| Resource Attribute | 2014 | 2013 | Change |
|---|---|---|---|
| Forestland area (million acres) | 51.1 | 51.0 | +0.0% ↑ |
| Number of trees (billions) | 12.0 | 12.0 | +0.1% ↑ |
| Volume (billion cubic feet) | 14.0 | 13.9 | +0.8% ↑ |
| Biomass (million tons) | 405.8 | 403.6 | +0.5% ↑ |

Estimates for the previous year are recompiled from the latest database and may differ from estimates in last year's report. Estimates are based on a sample. Sampling errors for the current year's estimates are: forestland area 0.8%, number of trees 1.5%, volume 1.4%, and biomass 1.3%.

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*Visit TexasForestInfo.com to see maps depicting the distribution of Central & West Texas trees like mesquite, juniper, and live oak.*

*Family forest owners are families, individuals, trusts, estates, family partnerships, and other unincorporated groups of individuals.*

*Of the 5 regions in Central & West Texas, the Westcentral is the most heavily forested at 58 percent of total area and the Northwest and West are the least forested at 25 percent of total area.*

# FORESTLAND AREA AND OWNERSHIP

Forestland is land with at least 10 percent cover by live trees of any size, including land that formerly had such tree cover and that will be naturally or artificially regenerated. The amount of forestland in Central & West Texas is estimated at 51.1 million acres, which is about 34 percent of the total area. The amount by region is shown in Figure 1.

In terms of ownership, 95 percent of the forestland is privately owned and the balance publicly owned (i.e., federal, state, and local governments). Results of woodland owner surveys show family forest landowners accounting for about 75 percent of the forestland in Central & West Texas.

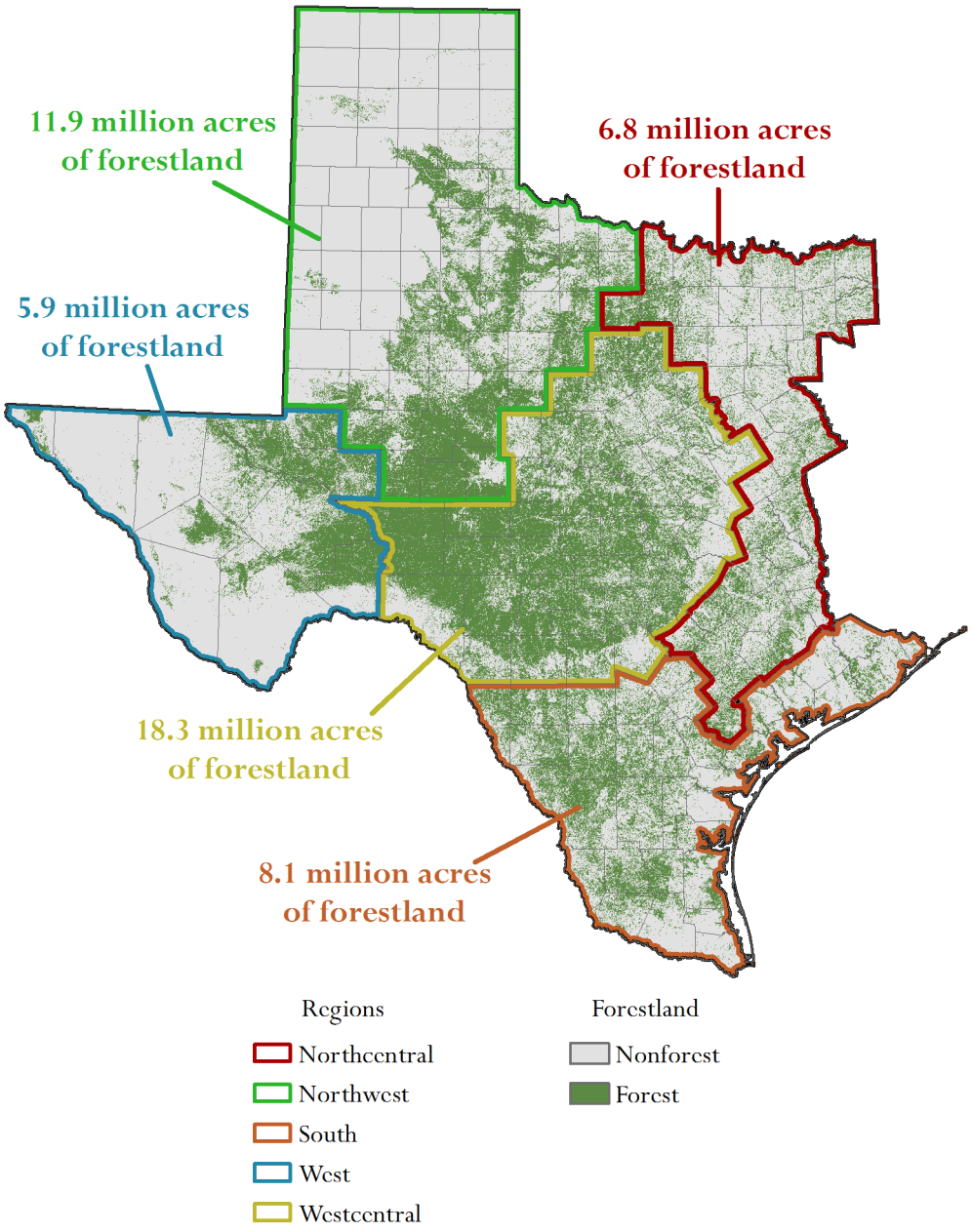


Figure 1. Amount of forestland area by region.

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*There are 12.0 billion trees in Central & West Texas.*

*There is an average of 235 trees per acre of forestland.*

*Foresters and resource specialists observed more than 114 different species of trees on the inventory plots.*

*Two species, honey mesquite and Ashe juniper, together account for 45 percent of all trees.*

# FOREST TYPES

Mesquite is the most abundant forest type in Central and West Texas (Figure 2). Forest types juniper-pine, oak, and other hardwood are also abundant.

Mesquite is the dominant forest type in the West, Northwest, and South Regions (Figure 3). Mesquite is present, but as a much smaller proportion of total forest area, in the other two regions.

Juniper-pine is the most common type in the Westcentral Region. It is the second most common type in the West and Northwest and nearly absent in the South Region.

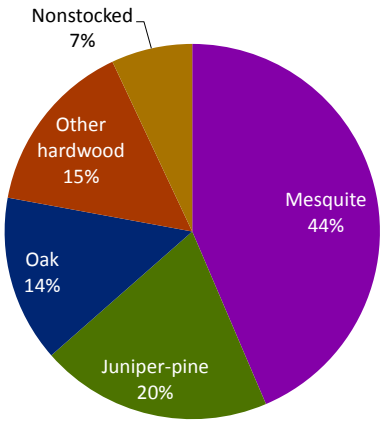


Figure 2. Forestland area by forest type.

Oak is a common type in the Westcentral and Northcentral Regions. Oak type forms small proportions of forestland in the other regions. Other hardwood is a common type in the Northcentral, South, and Westcentral Regions. It is a minor type in the West and Northwest Regions.

Nonstocked forestland currently has less than 10 percent stocking but at an earlier time met the definition of forestland. The nonstocked type accounts for a small proportion of forestland in each region.

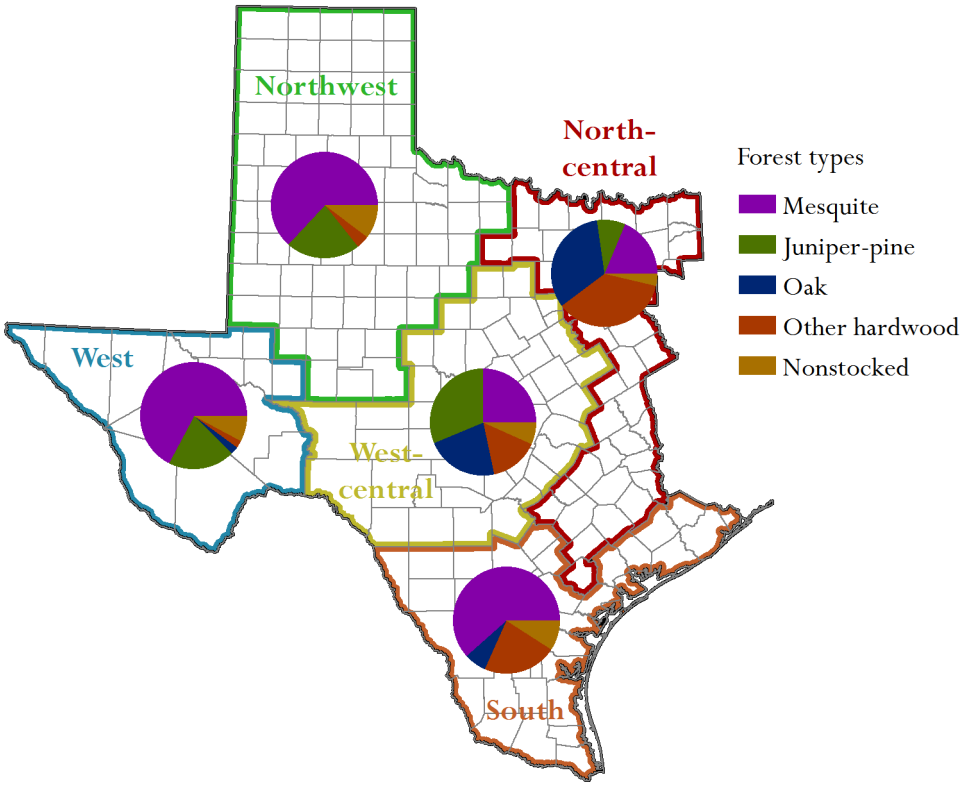


Figure 3. Forestland area by forest type for each region.

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*Xeric sites have low or deficient available moisture.*

*Mesic sites have moderate but adequate available moisture.*

*Hydric sites have abundant or overabundant moisture all year.*

*Volume reported here is net cubic foot volume from a 1-foot high stump to a minimum 4-inch top diameter outside bark in trees with a minimum diameter of 5 inches.*

*There is an average volume of 275 cubic feet per acre across all regions and forest types.*

## PRODUCTIVITY

"Productive" forestland is land capable of producing at least 20 cubic feet of wood per acre per year. Only 2.2 million of the 51.0 million acres (4 percent) of forestland in Central & West Texas meets this criterion. However, it is important to keep in mind that many services and benefits, such as wildlife habitat, clean air, soil stability, and aesthetics, are generated from forestland.

About 83 percent of the forestland is classified as xeric (see sidebar for definition). Mesic sites account for 17 percent of the total. Hydric sites are rare, accounting for less than 1 percent of total forestland area. As expected, xeric sites increase as a proportion of total forest area as one moves from east to west (Figure 4).

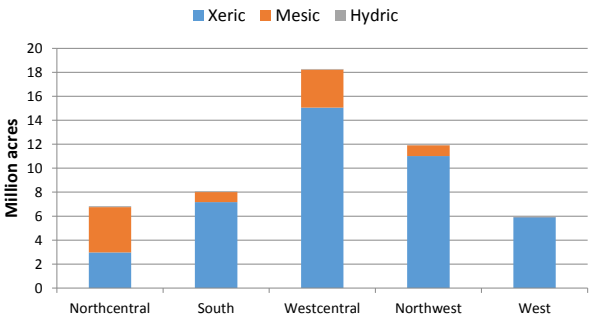


Figure 4. Forestland area by physiographic class and region.

## VOLUME

There is 14.0 billion cubic feet of total volume in Central & West Texas. The Westcentral Region accounts for 44 percent of total volume. The West Region accounts for just 2 percent (Figure 5). At 586 cubic feet per acre, the Northcentral Region has the highest average volume per acre. Average values for the Westcentral, South, Northwest, and West are 336, 255, 132, and 44 cubic feet per acre, respectively.

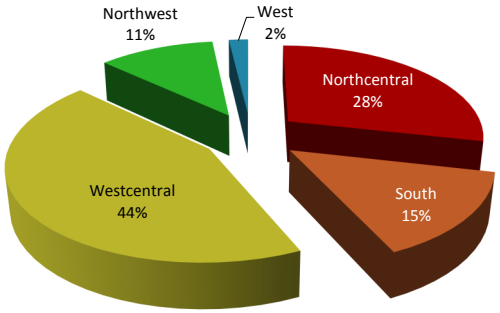


Figure 5. Percentage of total volume by region.

Volume is fairly evenly distributed across forest types, excluding the nonstocked type (Figure 6). At a value of 525 cubic feet per acre, the oak group has the highest average volume per acre. Averages for other hardwood, juniper-pine, mesquite, and nonstocked types are 390, 384, 150, and 23 cubic feet per acre, respectively.

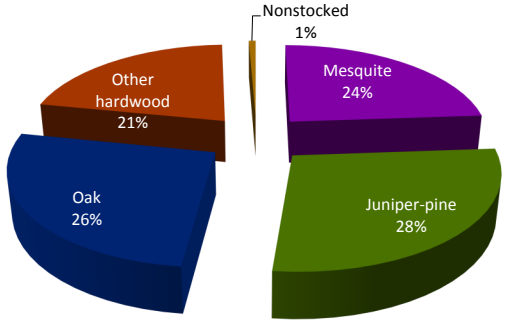


Figure 6. Percentage of total volume by forest type.

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*Biomass reported here is aboveground dry weight of live trees with a diameter of at least 1.0 inch.*

*There is an average biomass of 7.9 tons per acre on forestland across Central & West Texas.*

*Data by forest type and county/region are reported in the appendix.*

FIA data are available online at http://www.fia.fs.fed.us/tools-data/

## BIOMASS

There is an estimated 405.8 million tons (oven-dry) of aboveground biomass on forestland in Central & West Texas. The Westcentral Region has the most biomass and the West Region has the least (Figure 7). Averages range from 1.4 tons per acre in the West Region to 18.0 tons per acre in the Northcentral Region.

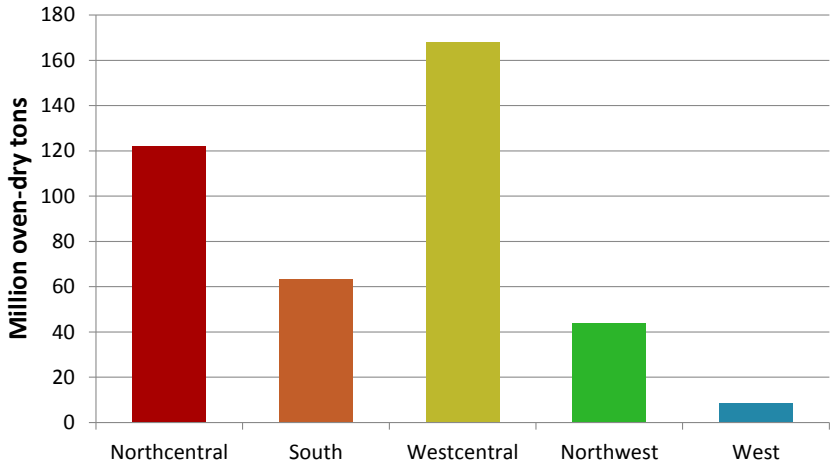


Figure 7. Biomass by region.

The distribution of biomass by forest type and diameter class is displayed in Figure 8. There is more biomass in the 8-inch diameter class than any other class. There is very little biomass in nonstocked stands as expected. The other four forest type groups contribute substantial amounts of biomass to every diameter class.

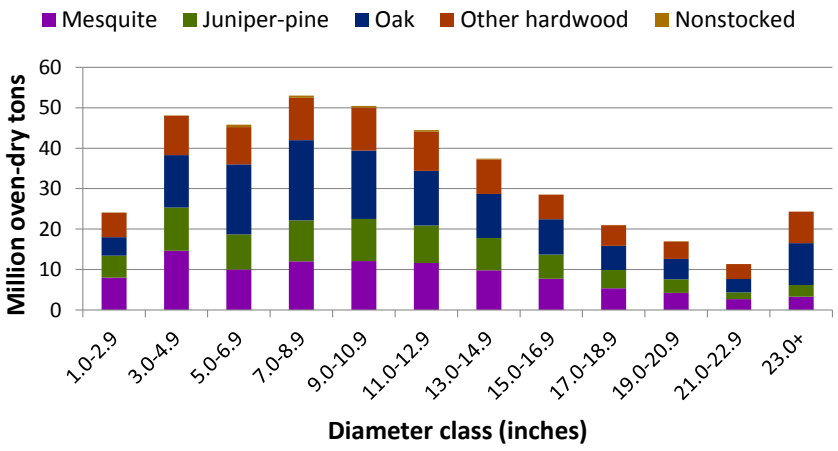


Figure 8. Biomass by forest type and diameter.

## MORE INFORMATION

This report was prepared by Aaron Stottlemyer, Forest Resource Analyst, and Rebekah Zehnder, Geospatial Analyst, of Texas A&M Forest Service. Feel free to contact either with questions about information in this report or about Forest Inventory and Analysis. They can be reached by phone at 979/458-6630 and by e-mail at astottlemyer@tfs.tamu.edu or rzehnder@tfs.tamu.edu.