Maine's Forests 2008: Statistics, Methods and Quality Assurance

USDA United States Department of Agriculture

Forest Service

Northern Research Station

Maine's Forests 2008: Statistics, Methods and Quality Assurance

Forest Inventory Methods

Strategic Model

The Forest Inventory and Analysis (FIA) program of the Northern Research Station (NRS) is part of the national enhanced FIA program that focuses on a set of six strategic objectives (McRoberts 2005):

- A standard set of variables with nationally consistent meanings and measurements
- Field inventories of all forested lands
- Nationally consistent estimation
- Adherence to national precision standards
- Consistent reporting and data distribution
- Credibility with users and stakeholders

To ensure that these objectives are achieved, 10 strategic approaches have been prescribed:

- A national set of prescribed core variables with a national field manual that describes measurement procedures and protocols for each variable
- A national plot configuration
- A nationally consistent sampling design
- Estimation using standardized formulae for sample-based estimators
- A national database of FIA data with core standards and user-friendly public access
- A national information management system
- A nationally consistent set of tables with estimates of prescribed core variables
- Publication of statewide tables with estimates of prescribed core variables at 5-year intervals
- Documentation of the technical aspects of the FIA program, including procedures, protocols, and techniques
- Peer review and publication of the technical documentation for general access

The result of this approach is an inventory program with identifiably new features and a nationally consistent plot configuration, a nationally consistent sampling design for all lands, annual measurement of a proportion of plots in each state, nationally consistent estimation techniques and algorithms, and integration of the ground-sampling components of the FIA inventory and detection monitoring by the U.S. Forest Service's Forest Health Monitoring (FHM) program.

Annual Inventory

The annual inventory for Maine started in 1999 incorporating a systematic grid for plot selection, improved protocol for forest inventory, and the addition of the FHM variables into the inventory process. The result is a three-phased program of plot selection, tree inventory, and forest health assessment. Five years are required to complete the state annual inventory. Two State annual inventories have been completed with this report covering the results of the second inventory.

Sampling Design - Plot Configuration

The national FIA plot design (Fig. 69) consists of four circular 24-foot radius subplots (1/24th acre) configured as a central subplot and three peripheral subplots.

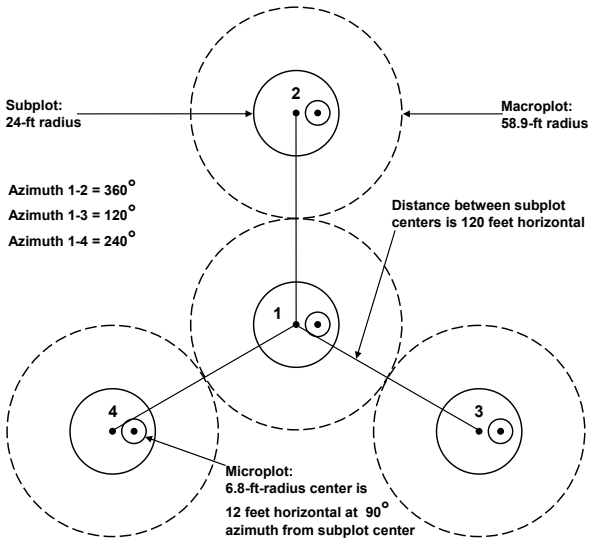

Figure 69.—National FIA plot design (adapted from Bechtold and Patterson 2005).

Centers of the peripheral subplots are located 120 feet from the central subplot and at azimuths of 360°, 120°, and 240° from the center of the central subplot. Trees with a diameter at breast height (d.b.h.) of 5 inches or greater are measured on these subplots. Each subplot contains a circular 6.8-foot radius microplot (1/300th acre) centered 12 feet east of the subplot center on which each tree at least 1 inch but less than 5 inches d.b.h. is measured. Forest conditions that occur on any of the four subplots are identified and recorded; if the area of the condition is 1 acre or greater, the condition is mapped on the subplot. Factors that differentiate forest conditions include forest type, stand-size class, stand origin, land use, ownership, and density. The ¼-acre macroplot currently is used by the Rocky Mountain and Pacific Northwest Stations' FIA programs to sample large trees.

On the basis of historical sampling errors, a sampling intensity of about one plot per 6,000 acres is necessary to satisfy national FIA precision guidelines. Therefore, FIA divided the area of the United States into nonoverlapping, 5,937-acre hexagons and has established a sample plot location in each hexagon. This array of field plots is designated the federal base sample and is considered an equal probability sample; measurement of the federal base sample is funded by the Federal Government.

The federal base sample is divided into five interpenetrating, nonoverlapping panels or subsamples, each of which provides complete, systematic coverage of a state. Each year, plots in a single panel are measured; panels are selected on a 5-year, rotating basis (McRoberts 1999), i.e., the plots measured in 1999 were measured again in 2004 and the plots measured in 2000 were measured again in 2005. For estimation purposes, the measurement of each panel of plots is considered an independent, equal probability sample of all lands in a state and the remeasurement of a panel is considered an equal probability sample of change occurring on all lands in a state. In many states inventoried by NRS, additional resources have been made available to intensify plot sampling. These resources enable additional sample plots to be measured. In Maine a single-intensity sample was completed in 1999.

Three-Phase Inventory

FIA conducts inventories in three phases. Remotely sensed data are used in Phase 1 to obtain initial plot land-cover observations to determine whether a field visit is required. Phase 1 data also are used to classify total area in the population of interest, for latter use in the post-stratification process, to increase the precision of estimates. In Phase 2, field crews visit the physical locations of permanent field plots to measure traditional inventory variables such as tree species, diameter, and height. All trees measured in the previous measurement of the plot are remeasured or otherwise accounted for and any new trees that have grown onto the plot are measured. In Phase 3, field crews visit a subset of Phase 2 plots to obtain measurements for an additional suite of variables associated with forest and ecosystem health. The three phases of the enhanced FIA program as implemented in this inventory are discussed in detail in the sections that follow.

Phase 1

Aerial photographs, digital orthoquads (DOQs: digitally scanned aerial photograph), and satellite imagery are used for initial plot measurement via remotely sensed data and stratification. Phase 1 plot measurement consists of observations of conditions at the plot locations using aerial photographs or DOQs. Analysts determine a digitized geographic location for each field plot and a human interpreter assigns to the plot a land cover/use with primary focus on identifying forest land.[1]

[1] Lands satisfying FIA's definition of forest land include commercial timberland, some pastured land with trees, forest plantations, unproductive forested land, and reserved, noncommercial forested land. Forest land requires minimum stocking levels, a 1-acre minimum area, and a minimum bole-to-bole width of 120 ft with continuous canopy. Forest land excludes wooded strips and windbreaks less than 120 ft wide and idle farmland or other previously nonforest land that currently is below minimum stocking levels.

All plot locations that could contain forest land, plus any additional plots that contained forest land at the previous measurement are selected for further measurement via field-crew visits in Phase 2.

The combination of natural variability among plots and budgetary constraints prohibits measurement of a sufficient number of plots to satisfy national precision standards for most inventory variables unless the estimation process is enhanced using ancillary data. Thus, the land area is stratified by using remotely sensed data to facilitate stratified estimation. NRS-FIA uses canopy-density classes obtained from the 2001 National Land Cover Database (NLCD) to derive strata (Homer et al. 2004). The NLCD 2001 canopy density layer for the United States was produced through a cooperative project conducted by the Multi-Resolution Land Characteristics (MRLC) Consortium (http://www.mrlc.gov/). The layer characterizes subtle variations of forest canopy density as a percentage estimate of forest canopy cover (0 – 100) within every 30-m pixel over the United States (Fig. 70). The method utilized to map canopy density for NLCD 2001 is described in Huang et al. (2001).

Phase 1 - Strata Construction

Strata construction methods used by NRS-FIA were developed to work well across the entire 24-state region. Using data on plot location (center of the center subplot), a percent canopy-density value was assigned to each plot. Plots were then aggregated into one of the five canopy cover classes based on the center of the center subplot. The canopy cover classification scheme consists of five groupings: 0 to 5, 6 to 50, 51 to 65, 66 to 80, and 81 to 100, percent. These groupings were based on observed natural clumping of pixel values.

In addition to the classification of every pixel into one of the five canopy cover classes, every pixel was assigned to an FIA ownership class. If the number of plots within a canopy cover class/ownership class/county was insufficient for valid estimations then specific collapsing rules were used to combine classes until sample sizes were sufficient. These collapsed classes defined the strata used in the estimation. NRS-FIA required a minimum of four plots per stratum for the 2008 inventory.

Stratified estimation requires that two tasks be accomplished. First, each plot must be assigned to a stratum. Next, the proportion of the total area in each stratum must be calculated. The first task is accomplished by assigning each plot to the stratum assigned for the pixel containing the center of the center subplot. The second task is accomplished by calculating the proportion of pixels in each stratum. The population estimate for a variable is calculated as the sum across all strata of the product of each stratum's observed proportion (from Phase 1) and the variable's estimated

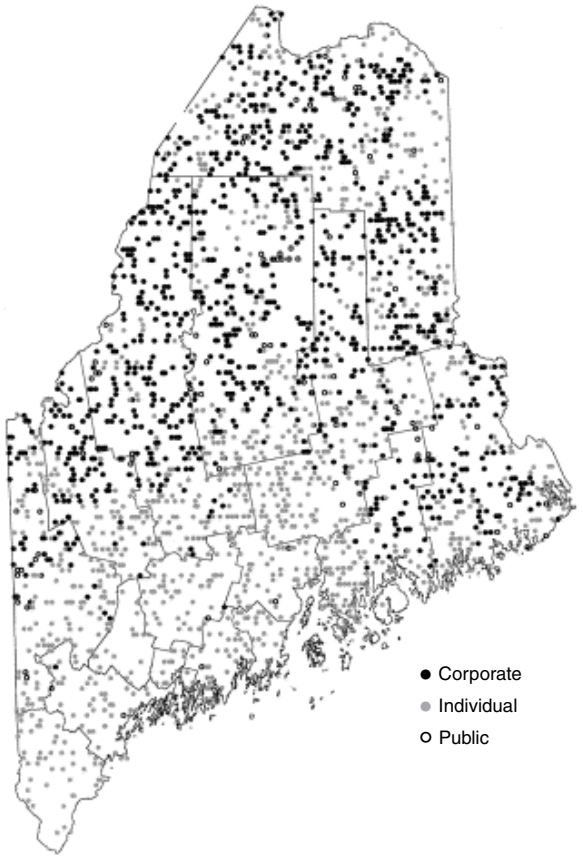

Figure 70.—Forested plot locations (approximated) associated with current inventory by FIA ownership categories, Corporate: (industrial forest product or timberland investment companies), Individual: (family forest, NGOs, or Native American), and Public: (federal, state, or local).

mean per unit area for the stratum (from Phase 2). Details of the stratum assignments used in Maine are presented in the estimation section of this report.

Phase 2

In Phase 2, field crews record a variety of data for plot locations determined in Phase 1 to include accessible forest land. Before visiting plot locations, field crews consult county land records to determine the ownership of plots and then seek permission from private landowners to measure plots on their lands. Field crews determine the location of the geographic center of the center subplot using geographic positioning system (GPS) receivers. Forest land requires minimum stocking levels, a 1-acre minimum area, and a minimum bole-to-bole width of 120 feet with continuous canopy. Forest land excludes wooded strips, idle farmland with trees, and narrow windbreaks.

Forest trees are measured within a cluster of four subplots using a historical set of locations determined from the Phase 1 process. The entire United States and territories are overlayed with a grid of nonoverlapping hexagons and the complete set of field plots are located within each of the selected hexagons. These sample locations are distributed approximately every 3 miles across the landscape. Twenty percent of a State's field cluster-plots are measured each year requiring 5 years to obtain a completed State inventory. The first annual inventory covered the 1999-2003 field seasons. This 2008 inventory reported here is based on measurements taken during the 2004-2008 field seasons.

Specifically, field crews record a variety of data for plot locations determined in Phase 1. They record observations that include land cover, forest type, stand origin, stand age, stand-size class, site-productivity class, history of forest disturbance, and land use for every condition (major land use of forest stand at least 1 acre in size) that occurs on the plot. They also record information on condition boundaries when multiple conditions are found on a plot. For each tree, field crews record a variety of observations and measurements, including condition, species, live/dead status, lean, diameter, height, crown ratio (percentage of tree height represented by crown), crown class (dominant, codominant, suppressed), damage, and decay status. All trees measured in the previous measurement of the plot are remeasured or otherwise accounted for and any new trees that have grown onto the plot are measured. Components of change, the growth, mortality, and removal of trees, are only to be calculated after the remeasurement of every tree.

Office staff use statistical models based on field-crew measurements to calculate values for additional variables, including individual-tree volume, per-unit-area estimates of number of trees, volume, and biomass by plot, condition, species group, and live/dead status. The application of the "moving average approach", where the latest 5 years of measured data (from two distinct inventories) are assessed as a group, insures the latest information is included in any analysis. Additional information on data collection procedures used in Phase 2 is available at http://www.nrs.fs.fed.us/fia/data-collection/.

Phase 3

The third phase of the enhanced FIA program focuses on forest health. The ground-survey portion of the detection-monitoring program was integrated into the FIA program as Phase 3 in 1999. Forest health is assessed from a more extensive collection of subplots taken from the original Phase 2 field plots. Crown conditions, understory vegetation, down woody material, soil conditions, lichen populations, and ozone-caused damage are measured from within a selected Phase 2 cluster-plot. Some of the indicators are measured from microplots, others such as down woody debris require larger schemes to accommodate the scale required for assessment. Because every 16th Phase 2 inventory plot is a Phase 3 forest health plot, one Phase 3 plot represents approximately 96,000 acres. Phase 3 is administered by the FIA program with consultation from other Forest Service programs, other Federal agencies, state

natural resource agencies, universities, and the FHM program. The FHM program consists of four interrelated and complementary activities: detection, evaluation, intensive site-ecosystem monitoring, and research on monitoring techniques. Detection monitoring consists of systematic aerial and ground surveys designed to collect baseline information on the current condition of forest ecosystems and to detect changes from those baselines over time. Evaluation studies examine the extent, severity, and probable causes of changes in forest health identified through the detection-monitoring surveys. Intensive site-ecosystem monitoring examines regionally specific ecological processes at a network of sites in representative forested ecosystems. Research on monitoring techniques focuses on developing and refining indicator measurements to improve the efficiency and reliability of data collection and analysis at all levels of the program.

Phase 3 variables are selected to address specific criteria on forest health outlined by the Montreal Process Working Group for the conservation and sustainable management of temperate and boreal forests (Montreal Process 1995) and are based on the concept of bioindicator variables. Observations of an indicator variable represent an index of ecosystem functions that can be monitored over time to assess trends. Indicator variables are used in conjunction with each other, Phase 2 data, data from FHM evaluation monitoring studies, and ancillary data to address ecological issues such as vegetation diversity, fuel loading, regional air-quality gradients, and carbon storage. The Phase 2 and Phase 3 data of the enhanced FIA program serve as the Nation's environmental report card for the Montreal Process.

Estimation

Most of the estimates and analysis of forest resources presented in this report, including the estimates in Tables 1-32, 54-61a, and 65 are based on data observed on the 3,563 Phase 2 plots across Maine. The analysis of forest-health issues that relate to down woody materials, soils, ozone damage, and crown condition are based on data collected on the 225 Phase 3 plots.

About 20 percent of the Phase 2 observations were acquired each year from October 1, 2003 through September 30, 2008. These observations, collectively called the 2008 inventory, are within 362 estimation strata (Table A) defined by five Phase 1 canopy-cover classes (0 to 5, 6 to 50, 51 to 65, 66 to 80, 81 to 100) or collapsed canopy-cover classes, and the FIA land-ownership classification, and county groups. Procedures described in Bechtold and Patterson (2005) for stratified estimation with observed stratum areas were used in conjunction with the strata presented in Table A to produce all estimates. Table A shows the total area and number of plots within each stratum.

Integration with Previous Inventories

FIA has a long history of conducting forest inventories in Maine. Periodic State inventories were completed in 1958 (Ferguson and Longwood 1960), 1970 (Ferguson and Kingsley 1972), 1982 (Powel and Dickson 1984), and 1995 (Griffith and Alerich 1996). These State inventories generally took 2 to 3 years to complete all of the field measurements. In 1999, the periodic inventory system was abandoned for a more responsive annual inventory system. The annual inventory takes 5 years to complete, measuring 20 percent of the plots each year. Each year's selected plots are known as a "panel". In 2008, FIA completed the measurement of the fifth panel of inventory plots in Maine. The 2008 panel along with panels from 2004, 2005, 2006, and 2007, completed the data collection for the second annual inventory of Maine. The first annual inventory for Maine was completed in 2003 (McWilliams et al. 2005). Data from new inventories often are compared with data from earlier inventories to determine trends in forest resources. However, for the comparisons to be valid, the procedures used in the two inventories must be similar. Identical classification procedures were used for the 2003 and 2008 inventories, so comparisons between these inventories are relatively simple. Comparisons with earlier inventories (1995, 1982, 1970 and 1958) are more problematic as there were changes in plot design and data-collection classification methods. Data collected under the annual inventory system must be harmonized

with the older inventories. Since new protocols have been implemented, the field data need to be adjusted by regional models. The entire annual inventory data have been harmonized back to 1999; and the periodic-to-annual adjustments will need to be completed in the future.

For consistency, a new, national plot design was implemented by all five regional FIA units in 1999 in which fixed-radius subplots are used exclusively. Prior to the new plot design (during the 1990 and 1977 inventories) fixed and variable-radius subplots were used. Both designs have advantages but they often produce different classifications for condition characteristics. Procedures for assigning condition attributes such as forest type, stand age, and stocking changed significantly with the introduction of the new annual plot design. However, FIA unpublished research results comparing these plot designs showed no significant difference in volume and tree-count estimates.

For additional information on the sample protocols and estimation procedures for the first two phases of the FIA program, see Bechtold and Patterson (2005). For additional information on Phase 3 indicator sampling protocols, see USDA Forest Service (2009) and Woodall and Monleon (2008).

Quality of the Estimates

Two general types of error - random variability (precision) and estimation bias (accuracy) - are of interest to users. Random variability refers to the precision of the estimate, which would occur if the entire sampling and estimation process were repeated many times. Estimation bias refers to the difference between the estimate and the "true value" in the absence of this random variability, and to the overestimation or underestimation inherent in the entire estimation process.

Errors in the estimates in this report (both random variability and estimation bias) are affected by various sources. The four primary sources of error common to all sample-based estimates are sampling, measurement, prediction, and nonresponse error. The following sections provide a definition for each source of error in the context of the FIA inventory as well as a discussion of methods used to quantify and/or reduce that source of error. Measures of sampling, measurement, and prediction errors associated with various attributes are presented. Issues of possible bias related to nonresponse also are addressed.

Sampling Error

The process of sampling (selecting a random subset of a population and calculating estimates from this subset) causes estimates to contain error they would not have if every member of the population (e.g., every tree in Maine) had been observed and included in the sample. The 2008 inventory of Maine is based upon the sampling of 3,563 forested and nonforested plots randomly located across the State; a sampling rate of approximately one plot for every 5,950 acres.

The statistical estimation procedures outlined in the previous section and detailed in Bechtold and Patterson (2005) provide the estimation formulas for determining population totals and their means in this report. A sampling error (SE) in percent is provided with every estimate. The estimate can be differentiated from another year's estimate using the SE as the confidence interval

(estimate + and – the SE). The sampling error is used to test the reliability to compare one estimate to another. The sampling error is based upon one standard deviation about the mean of a population. It is equivalent to a confidence of 67 percent or two out of three chances of having the correct number when the whole population is sampled. The sampling errors given for State-level estimates tend to be very small given the sample size used for the estimates. Forest Inventory Unit and county estimates (not including Aroostook), can have very large sampling errors depending on the attributes of interest. The sampling errors for State-level estimates of the major attributes presented in this report are presented in Table B. Table 65 presents sampling errors for these estimates at the FIA inventory-unit and county-group levels.

Estimates for classifications smaller than the State totals in Table B have larger sampling errors. For example, Table 65 shows that the sampling error for timberland area in any county is higher than that for total timberland area in Maine. To compute an approximate sampling error for an estimate that is smaller than a State total, use the following formula:

$$E = \frac{(SE)\sqrt{(\text{State total estimate})}}{\sqrt{(\text{Smaller estimate})}} \qquad (1)$$

where:

E = approximate sampling error for smaller estimate

SE = sampling error for State total estimate (percent)

For example, to compute the error on the area of forest land in the spruce/fir forest-type group for the State, proceed as follows:

The total area of the spruce/fir group in Maine (from Table 3) is 5,828,592 acres.

The total area of all forest land in the State (from Table 3) is 17,656,033 acres.

The State total error for forest land area (from Table B) is 0.42 percent.

Using formula (1):

$$\text{Sampling error} = E = \frac{(0.42)\sqrt{(17{,}656{,}033)}}{\sqrt{(5{,}828{,}592)}} = 0.73 \text{ percent.}$$

This approximation works well for estimates of area, volume, number of trees, and biomass. It is less effective for estimates of growth, removals, or mortality. Individuals seeking more accurate sampling errors should use Forest Inventory Data Online (FIDO), available at http://fiatools.fs.fed.us.

The estimators used by FIA are unbiased under the assumptions that the sample plots are a random sample of the total population, and that the observed value for any plot is the true value for that plot. Deviations from these basic assumptions are not reflected in the computation of sampling errors. The following sections on measurement, prediction, and nonresponse error address possible departures from these basic assumptions.

Measurement Error

Errors associated with the methods and instruments used to observe and record the sample attributes are called measurement errors. On FIA plots, attributes such as the diameter and height of a tree are measured with different instruments; other attributes such as species and crown class are observed without the aid of an instrument. On a typical FIA plot, 15 to 50 trees are observed with 15 to 20 attributes recorded on each tree. Also, many attributes that describe the plot and conditions on the plot are observed. Errors in any of these observations affect the quality of the estimates. If a measurement is biased (such as tree diameter consistently taken at an incorrect place on the tree), estimates that use this observation (such as volume) will reflect this bias. Even if measurements are unbiased, high levels of random error in the measurements will add to the total random error of the estimation process.

To ensure that all FIA observations are made to the highest standards possible, a regular program of quality control and quality assurance is an integral part of all FIA data-collection efforts. This program begins with

the documentation of protocols and procedures used in the inventory followed by extensive crew training. To assess the quality of the data collected by these trained crews, a random sample of at least 4 percent of all plots is measured independently by a different qualified crew. These independent measurements are called blind checks. A second measurement on blind-check plots is made by a quality assurance (QA) crew. QA crews have as much or more experience and training in FIA field measurements as that of a standard FIA crew.

The quality of field measurements is assessed nationally through a set of measurement quality objectives (MQOs) that are set for every data item collected. Each MQO consists of two parts: a tolerance or acceptable level of measurement error and an objective in terms of the percentage of measurements within tolerance. Blind-check measurements are used to observe how often individual field crews are meeting these objectives and to assess the overall compliance among all crews. Table C shows the compliance rates for various measurements used to compute the estimates included in this report and in other FIA reports. Columns labeled "Maine" are based on blind check measurements of plots used in this publication. The columns labeled "All NRS States" includes all measurements made by FIA crews within the 24-state region (Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, West Virginia, and Wisconsin) in which the NRS implemented the FIA program from 2000 through 2008. Training and supervision of crews is a regional effort and crews often work in more than one state. Regional data-quality observations reflect the overall measurement quality of all data collected by FIA in the Northern States.

In Maine, variables such as d.b.h. have a low tolerance (± 0.1 inch) and a high percentage of data within the tolerance (93.8 percent). Measurements for determining tree-size class are precise. By contrast, variables such as stand age have a larger tolerance (± 10 years) and fewer data within the tolerance (87.3 percent). The estimate of stand age is based on the composition of all age classes within a stand. Often a stand is heterogeneous by age but a single value must be assigned to it. This can confound analysis of stand age over time.

Blind-check observations also were used to test for relative bias in the field-crew measurements. Relative bias is defined here as a tendency for standard measurements by field-crews to be higher or lower than measurements by QA crews. The estimated relative bias and limits of 95-percent confidence intervals (based on parametric bootstrap estimates) for the relative bias are presented in Table D. Relative bias is reported only for variables that are measurements of continuous attributes (e.g., diameter and height) and several coded variables that are ordinal in nature (e.g., crown position). Relative bias is not appropriate for most coded variables.

Blind-check measurements do not provide direct observations of true bias in field measurements (average difference between field measurements and true values) because they are paired observations of two field measurements. The QA crew in these blind checks typically has more training and experience with FIA field measurements than the first crew, but both crews use the same methods and instruments to obtain measurements. These methods have been identified as the best available and selected for nationwide use by FIA, and are commonly used by similar natural-resource inventories. A basic assumption is that when applied correctly, these methods provide unbiased observations of the attribute they are designed to measure. Under this assumption, relative bias observations in Table D provide observations of bias due to the difference in experience and training between the field and QA crews. In most cases, there is no significant bias.

Prediction Error

Errors associated with using mathematical models (such as volume models) to provide observations for attributes of interest not directly measured on sample plots are referred to as prediction errors. Area, number

of trees, volume, biomass, growth, removals, and mortality are the primary attributes of interest presented in this report. Area and number of trees estimates are based on direct observation and do not involve the use of prediction models; however, FIA estimates of volume and biomass use model-based predictions in the estimation process. Models are used to predict volume and biomass for individual trees. Change estimates such as growth, mortality, and removals use these model-based predictions from both the current plot measurements and the measurements taken in the previous inventory.

Estimates of model error associated with the volume models used in this report are presented by Scott (1979, 1981), along with the model forms, the methods used in model development, and the model parameter estimates. For cubic-foot volume, the averaged squared error percent across 17 species groups ranged from 0.2 to 7.1; with average relative error from 1.5 to 3.1 percent. For these same 17 groups, the average squared error for board-foot volume varied from 4.1 to 477.7; with corresponding average relative error of 0.6 to 4.5 percent. Biomass of individual trees is calculated using the procedures described by Heath et al. (2009). Numerous factors are involved in these computations, including tree volume models, wood and bark specific gravity, and various proportions of tree components (e.g., tops and limbs). Due to the complex methodology, errors associated with model-based predictions of biomass have not yet been quantified.

Users of FIA estimates should be aware of the possible prediction errors in FIA estimates. In comparing FIA estimates to other data sources, users need to be aware of the prediction models and methods used in both estimates. If both estimates are based on the same methods and prediction model parameter values, then the prediction bias of one estimate should cancel out that of the other estimate. If the estimates are based on different prediction methods and/or models, then the user should be aware of the prediction errors associated with each technique.

Nonresponse Error

Nonresponse error occurs when crews are unable to measure a plot (or a portion of a plot) at a selected location. Nonresponse falls into three classes:

Denied access – Entire plots or portions of plots where the field crew is unable to obtain permission from the landowner to measure trees on the plot.

Hazardous/inaccessible – Entire plots or portions of plots where conditions prevent a crew from safely accessing the plot or measuring trees on the plot.

Other – Plots where the field crew is unable to obtain a valid measurement for reasons other than those stated.

Nonresponse has two effects on the sample: it reduces the sample size, which is reflected in the sampling errors, and it can bias the estimates if the portion of the population not being sampled differs from the portion being sampled.

In FIA, nonresponse rates are relatively low. In the 2008 Maine inventory, 18,133 sample plots were selected for observation. Over 98 percent of these are included in the sample used to estimate current resources. On 266 plots, crews were unable to obtain owner permission to measure the plot or part of the plot; hazardous conditions on 68 plots prevented the crew from measuring all or part of the plot.

Even an overall nonresponse rate of 1 percent can cause considerable bias if not properly accounted for. The major source of nonresponse is denied access to plots, which occurs primarily on lands in private ownership. Also, observations for plots on nonforest land and water classes rarely require crews to physically enter the area, and permission is not needed because the observation can be obtained from aerial photos or other sources of remotely sensed information.

The stratified estimation process used by FIA with strata defined by ownership classes and canopy cover

class reduces the possible effects of bias caused by nonresponse. Under the stratified estimation process used by FIA, nonresponses are removed from the sample, and stratum estimates (means, totals, and sampling errors) are obtained only from plots with valid observations. The net effect in the estimates of means and totals is that the average of the observed plots within the stratum (ownership-canopy-cover class) becomes the estimate for all nonresponses within that stratum. The nonresponse rate in one stratum does not affect the estimate in other strata. The response rate by ownership is presented in Table E. Response rates by ownership and strata are presented in Table A.

In Table 1 of this report, we acknowledge denied access and hazardous as two land classes in Maine within which we are unable to provide estimates for variables such as forest area and timber volume. However, we do report the total estimated area in each of these classes. In all other tables of this report, we do not acknowledge either of these classes, and in the estimation process we treat the sample where we do have observations as a random sample of the entire State.

The nonresponse plots in this inventory were not permanently removed from the FIA system of plots. In future inventories we will again attempt to measure these plots. At that time we may be able to obtain permission to access these plots, hazardous conditions may have changed, and other circumstances that caused us to drop plots from a specific inventory cycle may well change.

Glossary

Accretion: The estimated net growth on trees that were measured during the previous inventory (divided by the number of growing seasons between surveys to produce average annual accretion). It does not include growth on trees cut during the period nor those trees that died. This component uses the incremental change in volume between two inventories.

Annual mortality of growing-stock: The average cubic-foot volume of wood in growing-stock trees that died in 1 year.

Annual mortality of sawtimber: The average board-foot volume of wood in sawtimber trees that died in 1 year.

Annual net growth of growing-stock: The annual change in cubic-foot volume of wood in live growing-stock trees, and the total volume of trees entering all of the diameter classes greater than 5.0 inches d.b.h., through ingrowth. All volume losses through natural causes must be deducted. Natural causes include mortality except that which is due the logging damage, timber stand improvement activities, or conversion to nonforest land use.

Annual net growth of sawtimber: The annual change in board-foot (bd. ft.) volume of wood in live sawtimber trees, and the total volume of trees reaching sawtimber size, less volume losses resulting from natural causes.

Annual removals from growing-stock: The average cubic-foot volume of wood in live growing-stock trees removed annually for roundwood forest products, in addition to the volume in logging residues or mortality due to logging damage (harvest removals). This component of change also includes the volumes of growing-stock trees removed due to land use changes (other removals).

Annual removals from sawtimber: The average board-foot volume of wood in live sawtimber trees removed annually for roundwood forest products, in addition to the volume in logging residues or mortality due to logging damage (harvest removals). This component of change also includes the volumes of sawtimber trees removed due to land use changes (other removals).

Basal area: The cross-sectional area of a tree stem at breast height, expressed in square feet.

Bioindicator species: A tree, woody shrub, or herb species that responds to ambient levels of ozone pollution with distinct visible foliar symptoms that are easy to diagnose.

Board foot: A unit of lumber measuring 1-foot long, 1-foot wide, and 1-inch thick, or its equivalent. International ¼-inch rule is used as the U.S. Forest Service standard log rule in the eastern United States.

Bulk density: The mass of soil per unit of volume. A measure of the ratio of pore space to solid materials in a given soil. It is expressed in units of grams per cubic centimeter of oven-dried soil.

Census water: Lakes reservoirs, ponds, and similar bodies of water 4.5 acres in size or larger; and rivers or canals more than 200 feet wide (U.S. Census definition).

Coarse woody debris (CWD): Dead branches, separated twigs, and wood splinters, 3 inches in diameter and larger, measured from the smallest end.

Commercial species: Tree species currently or prospectively suitable for industrial wood products; excludes species of typically small size, poor form, or inferior quality, e.g., hawthorn and sumac.

Condition: A delineation of a land area based upon land use, forest type, stand size, regeneration status, reserved status, tree density, and owner class.

Corporate: An ownership class of private lands owned by corporations.

County and municipal: An ownership class of public lands owned by counties or local public agencies, or lands leased by these governmental units for more than 50 years. Also known as local government.

Cropland: Land under cultivation within the last 24 months, including cropland harvested, crop failures, cultivated summer fallow, idle cropland used only for pasture, orchards, active Christmas tree plantations indicated by annual shearing, nurseries, and land in soil improvement crops but excluding land cultivated in developing improved pasture.

Crown: The part of the tree or woody plant bearing live branches, foliage, and twigs.

Crown dieback: Recent mortality of branches with fine twigs, which begins at the terminal portion of a branch and proceeds toward the trunk. Dieback is considered only when it occurs in the upper and outer portions of the tree. When whole branches are dead in the upper crown, without obvious signs of damage such as breaks or animal injury, it is assumed the branches died from the terminal portion of the branch. Dead branches in the lower portion of the live crown are assumed to have died from competition and shading.

Cull decrement: The net volume of rough and rotten cull trees in the previous inventory that are classified as growing-stock trees in the current inventory (divided by the number of growing seasons between inventories to compute average annual cull decrement).

Cull increment: The net volume of growing-stock trees in the previous inventory that are classified as rough and rotten cull trees in the current inventory (divided by the number of growing seasons between inventories to compute average annual cull increment).

Cull tree: A rough tree or a rotten tree.

Decay class: Qualitative assessment of the stage of decay (5 classes) of coarse woody debris or standing dead trees based on visual assessments of the color of the wood, presence/absence of twigs and branches, texture of rotten portions, and structural integrity.

Diameter-at-breast-height (d.b.h.): The diameter outside bark of a standing tree measured at 4.5 feet above the ground.

Diameter-at-root-collar (d.r.c.): The diameter outside bark of a seedling or sapling measured at the root collar.

Diameter class: A classification of trees based upon d.b.h. and grouped in 2-inch (5 cm) diameter classes. Each class provides a range of values with the class name being the approximate midpoint. For example, the 6-inch d.b.h. class (15-cm class) includes trees with diameters 5.0 through 6.9 inches d.b.h., inclusive.

Dry ton: A unit of measure of dry weight equivalent to 2,000 pounds or 907.1848 Kg.

Dry weight: The weight of wood and bark as it would be if it had been oven dried; usually expressed in pounds or tons.

Down woody material (DWM): Dead material on the ground in various stages of decay. It includes coarse and fine woody material. The FIA DWM indicator data includes information on the depth of the duff layer, litter layer, and the overall fuelbed; including fuel loading on the microplot and residue piles.

Duff: A soil layer dominated by organic material derived from the partial decomposition of plant and animal litter, and deposited on either an organic or mineral surface. This layer is distinguished from the litter layer in that the organic matter has undergone sufficient decomposition to make it difficult to identify its origin.

Effective cation exchange capacity: The sum of the cations that a soil can absorb in its natural pH. It is expressed in units of centimoles of positive charge per kilogram of soil.

Federal: An ownership class of public lands owned by the U.S. Government.

Fiber products: Products derived from wood and bark residues, such as pulp, composition board, and wood chips for export.

Fine materials: Wood materials not suited for chipping, such as planer shavings and sawdust.

Forest land: Land that is at least 10 percent stocked with trees of any size, or that formerly had such tree cover and is not currently developed for a nonforest use. The minimum area for classification as forest land is 1 acre and 120 feet wide measured stem-to-stem from the outer-most edge. The components that make up forest land are timberland and all noncommercial forest land.

Forest type: A classification of forest land based on and named for a composition of tree species that form a plurality of live-tree stocking. If softwoods predominate (50 percent or more), then the forest type will be one of the softwood types and likewise for hardwoods. For the eastern United States, there are mixed hardwood-pine forest types when the pine and/or redcedar (either eastern or southern) component is between 25 and 49 percent of the stocking. If the pine/redcedar component is less than 25 percent of the stocking, then one of the hardwood forest types is assigned.

Forest-type group: A combination of forest types that share closely associated species or site requirements are combined into forest-type groups.

Fuel hour classes: Fuel classes defined by the amount of time it roughly takes for moisture conditions of a given fuel to fluctuate. Larger coarse woody debris will inherently take longer to dry out than smaller finer woody pieces (Small FWD=1-hour, Medium FWD=10-hour, Large FWD=100-hour, CWD=1000-hour).

Gross growth: The sum of accretion and ingrowth.

Growing-stock: A classification of timber inventory that includes live trees of commercial species meeting specified standards of quality or vigor. Rough and rotten trees are excluded. When concerning volume estimates, includes only trees 5 inches d.b.h. and larger.

Growing-stock trees: Live trees of commercial species classified as poletimber or sawtimber, and are not rough or rotten trees.

Growing-stock volume: Net or gross volume in cubic feet of growing-stock trees 5.0 inches and larger d.b.h. measured from the 1-foot stump to a minimum 4.0-inch top diameter outside bark on the central stem, or to the point where the central stem splits into limbs. Net volume equals gross volume minus deduction for cull defects.

Hardwood trees: Trees belonging to the botanical subdivision Angiospermae, class Dicotyledonous, usually broad-leaved and deciduous.

Industrial wood: All commercial roundwood products except fuelwood.

Ingrowth: The estimated net volume of trees that became 5.0 inches and larger d.b.h. during the period between inventories (divided by the number of growing seasons between surveys to produce average annual ingrowth). Also, the estimated net volume of trees 5.0 inches and larger d.b.h. that are growing on land that was reclassified from noncommercial forest land or nonforest land to timberland.

Introduction: The intentional or unintentional escape, release, dissemination, or placement of a species into an ecosystem as a result of human activity. "Introduced" is not synonymous and should not be confused with the term "invasive" (USDA definition).

Invasive species: Those species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health. For the purpose of this policy only, a plant species is considered "invasive" only when it occurs on the Federal or State-specific noxious weed list or a list developed by the State-specific Department of Agriculture with their partners and approved by the State Technical Committee which prohibits or cautions its use due to invasive qualities (USDA definition).

Land area: The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than 200 feet wide; and lakes, reservoirs, and ponds less than 4.5 acres in area.

Land use: A classification of land that indicates the primary use at the time of the inventory. Major categories are forest land and nonforest land.

Litter: Undecomposed or lightly decomposed organic material that can be easily identified to its origin.

Live aboveground biomass: The aboveground volume of live trees (including bark but excluding foliage) reported in dry tons (dry weight). Aboveground biomass has four components:

> ***Bole:*** Biomass of a tree from 1 foot above the ground to a 4-inch top outside bark or to a point where the central stem breaks into limbs.
>
> ***Tops and limbs:*** Total biomass of a tree from a 1-foot stump minus the bole.
>
> ***Saplings:*** Total aboveground biomass of a tree from 1 to 5 inches in d.b.h.
>
> ***Stump:*** Biomass of a tree 5 inches d.b.h. and larger from the ground to a height of 1 foot.

Live cull: A classification that includes live, cull trees. When associated with volume, it is the net volume in live, cull trees that are 5.0 inches d.b.h. and larger.

Merchantable: Refers to a pulpwood or saw log section that meets pulpwood or saw log specifications, respectively.

National Forest: An ownership class of federal lands, designated by executive order or statue as National Forests or purchase units, and other lands under the administration of the U.S. Forest Service, including experimental areas.

Net cubic-foot volume: The gross volume in cubic feet less the deductions for rot, roughness, and poor form. Volume is computed from the 1-foot stump to a minimum 4.0-inch top diameter outside bark on the central stem, or to the point where the central stem splits into limbs.

Net board-foot volume: The gross volume in board feet less the deductions for rot, roughness, and poor form. Volume is computed from the 1-foot stump to a minimum 7.0-inch diameter outside bark for softwoods and a minimum 9.0-inch outside bark for hardwoods on the central stem. This estimate includes all softwoods 9.0 inches d.b.h. and larger, and all hardwoods 11.0 inches d.b.h. and larger.

Noncensus water: Streams/rivers 120 to 200 feet wide and bodies of water 1 to 4.5 acres in size, where the U.S. Bureau of the Census (1990) classifies such water as land.

Noncommercial species: Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial roundwood products.

Noncorporate private: Nongovernmental conservation and natural resource organizations; unincorporated local partnerships, associations, and clubs; individuals; and Native American communities.

Nonforest land: Land that does not support or has never supported, forests or formerly forested lands where the use of timber management is precluded by development for other uses. This includes areas used for crops, improved pasture, residential areas, city parks, powerline clearings, and noncensus water. Unimproved roads and nonforest strips must be more than 120 feet (36.6 m) wide, and clearings etc., must be more than one acre (0.4 ha) in size to qualify as nonforest land.

Nonnative species: Within a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem (USDA definition).

Nonstocked areas: Timberland less than 10-percent stocked with live trees.

Ownership unit: A classification of ownership encompassing all types of legal entities having an ownership interest in land, regardless of the number of people involved. A unit may be an individual, a combination of persons; a legal entity such as a corporation, partnership, club, or trust, or a public agency. An ownership unit has control of a parcel or group of parcels of land.

Owner class: A classification of land into categories of ownership.

Forest industry: Land owned by private companies which operate primary wood-using mills.

Nonindustrial private: Land owned by other corporate, individuals or trusts (NGOs) and whom do not operate primary wood-using mills.

Other corporate: Land owned by timber investment or real estate companies.

Public: Land owned by federal, state, county, or municipal government.

Ozone: A regional, gaseous air pollutant produced primarily through sunlight-driven chemical reactions of nitrogen dioxide and hydrocarbons in the atmosphere and causing foliar injury to deciduous trees, conifers, shrubs, and herbaceous species.

Ozone bioindicator site: An open area used for ozone injury evaluations on ozone-sensitive species. The area must meet certain site selection guidelines on size, condition, and plant counts to be used for ozone injury evaluations in FIA.

Physiographic class: A measure of soil and water conditions that affect tree growth on a site. The physiographic classes are as follows:

Xeric: Very dry soils where excessive drainage seriously limits both growth and species occurrence. These sites are usually on upland and upper half slopes.

Xeromesic: Moderately dry soils where excessive drainage limits growth and species occurrence to some extent. These sites are usually on the lower half slopes.

Mesic: Deep, well drained soils. Growth and species occurrence are limited only by climate. These include all cove sites (small sheltered bays) and bottomlands (low land) along intermittent streams.

Hydromesic: Moderately wet soils where insufficient drainage or infrequent flooding limits growth and species occurrence to some extent.

Hydric: Very wet sites where excess water seriously limits both growth and species occurrence.

Poletimber trees: Live-trees at least 5.0 inches d.b.h., but smaller than sawtimber-size trees (also referred to as "medium-diameter" trees).

Primary wood-using mill: A mill that converts roundwood products into other wood products. Common examples are sawmills that convert saw logs into lumber, and pulp mills, which convert pulpwood into paper.

Productivity class: A classification of forest land in terms of potential annual cubic-foot volume of growth per acre at culmination of mean annual increment in fully stocked natural stands.

Pulpwood: Roundwood, whole-tree chips, or wood residues used for the production of wood pulp.

Reserved forest land: Land permanently reserved from wood products utilization through a statute or administrative designation. Examples include national forest wilderness areas, national parks, and national monuments.

Residues: Bark and woody materials that are generated in primary wood-using mills when roundwood are converted to other wood products. Examples of wood residues include slabs, edgings, trimmings, miscuts, sawdust, shavings, veneer cores, and pulp screenings. This category excludes logging residues.

Rotten tree: A live tree of a commercial species that does not contain a saw log now or prospectively because of the presence of rot effecting more than 50 percent of the cull volume.

Rough tree: A live tree of a commercial species that does not contain a saw log now or prospectively because of the presence of roughness (sound cull due to poor form, splits, or cracks) effecting more than 50 percent of the cull volume.

Roundwood products: Logs, bolts, or other round timber generated from harvesting trees for industrial or consumer uses. Roundwood products include sawlogs, veneer, cooperage logs, bolts, pulpwood logs, fuelwood, pilings, poles posts, ties, mine timbers, and various other round or split products.

Salvable dead tree: A downed or standing dead tree considered currently or potentially merchantable by regional standards.

Saplings: Live trees with a d.b.h. or d.r.c. between 1.0 inch (2.5 cm) and 4.9 inches (12.5 cm).

Saw log: A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, and with a minimum diameter inside bark of 6 inches for softwoods and 8 inches for hardwoods, or meeting other combinations of size and defect specified by regional standards.

Sawtimber tree: A live tree of a commercial species containing at least a 12-foot saw log or two noncontiguous 8-foot saw logs, and meeting the d.b.h. requirements of 9.0 inches for softwoods and 11.0 inches for hardwoods.

Sawtimber volume: Net or gross volume in board-foot (International ¼-Inch Rule) or cubic-foot of the sawlog portion of live sawtimber trees measured from the 1-foot stump to a minimum 7.0-inches top diameter outside bark (for softwoods) or 9.0 inches top diameter outside bark (for hardwoods), on the central stem, or to the point where the central stem splits into smaller limbs. Net volume equals gross volume minus deduction for rough and rotten cull.

Seedling: Live tree smaller than 1.0 inch d.b.h./d.r.c. and at least 6.0 inches (15.2 cm) in height for softwoods and 12.0 inches (30.5 cm) in height for hardwoods.

Site index: An expression of forest site quality based upon the height of a free growing dominant or codominant tree of a representative species in the specified forest type usually at age 50.

Snag: A standing dead tree. In the current inventory, a snag must be 5.0 inches d.b.h. and 4.5 feet tall, and have a lean angle less than 45 degrees from vertical. A snag may be either self-supported by its roots, or supported by another tree or snag.

Softwood tree: A coniferous tree, usually evergreen, having needles or scale-like leaves.

Sound dead: The net volume in salvable dead trees.

Species group: A combination of tree species that share closely associated understory plants or site requirements are combined into species groups.

Stand: A group of trees on a minimum of 1 acre of forest land that is stocked by forest trees of any size.

Standing dead tree: A standing dead tree must be at least 5 inches d.b.h. and larger; is at least 4.5 feet in height; and has a lean of less than 45 degrees from the vertical. A snag should be self-supported or supported by another tree.

Stand-size class: A condition classification of accessible forest land based upon the size class of stocking; that is, ***small-diameter stands*** (less than 5.0 inches d.b.h.), ***medium-diameter stands*** (5.0 to 8.9 inches d.b.h. for softwoods and 5.0 to 10.9 inches d.b.h. for hardwoods), or ***large-diameter stands*** (≥ 9.0 inches for softwoods and 11.0 d.b.h. for hardwoods), of live trees in the selected area.

State: An ownership class of public lands owned by states or lands leased by states for more than 50 years. Also a general reference to one of the political and geographic subdivisions of the United States.

Stocking: The degree of occupancy of land by trees, measured by basal area or the number of trees per area, or spacing, or both; often compared to a stocking standard that would be required to fully utilize the growth potential of the land.

Stocking class: At the tree level, stocking is the density expressed as a percent of total tree density required to fully utilize the growth potential of the land. At the stand level it is expressed as the sum of the stocking values of all trees sampled. An ***overstocked*** stand has stocking ≥100 percent, ***fully stocked*** stands contain 60-99 percent of full stocking, ***moderately stocked*** stands are 35-59 percent of full stocking, and ***poorly stocked*** stands have only 10-34 percent of full stocking. A ***nonstocked*** stand has less than 10 percent of full stocking.

Timberland: Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative rule. (Note: Areas qualifying as timberland are capable of producing in excess of 20 cubic feet of wood per acre, per year in natural stands. Currently inaccessible and inoperable areas are included).

Tops: Refers to the wood of a tree found above the 4.0-inch top (d.b.h. outside bark).

Total live tree biomass: The total mass of live trees and associated saplings expressed in pounds or tons (dry weight) per unit area. The total tree and sapling biomass (excluding foliage) has five components:

Bole: Biomass of a tree from 1 foot above the ground to a 4-inch top outside bark or to a point where the central stem splits into smaller limbs. This includes perturbing twigs from the central stem.

Tops and limbs: Total biomass of a tree from the 12-inch stump minus the bole. This does not include any twigs perturbing from the central stem below the 4-inch top.

Sapling trees: Total aboveground biomass of a tree from 1 to 4.9 inches diameter measured at the root collar d.b.h. or d.r.c.

Stump: Total biomass of a tree 5 inches d.b.h. and larger from the ground to a height of 1 foot.

Belowground: Total biomass of the belowground portion of the stump and the coarse roots of all trees and saplings.

Tree: A woody plant usually having one or more erect perennial stems, a stem d.b.h. of at least 3.0 inches, a more or less definitely formed crown of foliage, and a height of at least 15 feet at maturity.

Tree class: A classification of tree quality or condition of the tree for saw log production. Tree class for sawtimber-size trees are based on current conditions. Tree class for poletimber-size trees is based on the prospected determination or forecast of the potential tree quality when the tree reaches sawtimber size.

Tree size class: A classification of trees based upon diameter at breast height, diameter of the root collar, and tree height, as applied to seedlings, saplings, poletimber, and sawtimber trees.

Unreserved forest land: Forest land not withdrawn from harvest by statute or administrative regulation. This includes forest lands that are not capable of producing in excess of 20 cubic feet per acre per year of industrial wood in natural stands.

Tables of Quality Assurance

Table A.—Area and number of plots in each stratum, Maine, 2008

Table B.—State-level estimates of major forest resource attributes and their sampling errors, Maine, 2008

Table C.—Measurement quality objective (MQO) tolerance compliance based on blind check plots, Maine, 2008

Table D.—Observed relative bias values (Average [field crew - QA crew]) for measurement variables on blind check plots, Maine, 2008

Table E.—FIA nonresponse by ownership, Maine, 2008

Tables of Estimates

Gaps in the enumeration of tables are placeholders for future reports.

Area

Table ME-1.—Percentage of area by land status, Maine, 2008

Table ME-2.—Area of accessible forest land by owner class and forest-land status, Maine, 2008

Table ME-3.—Area of accessible forest land by forest-type group and productivity class, Maine, 2008

Table ME-4.—Area of accessible forest land by forest-type group, ownership group, and land status, Maine, 2008

Table ME-5.—Area of accessible forest land by forest-type group and stand-size class, Maine, 2008

Table ME-6.—Area of accessible forest land by forest-type group and stand-age class, Maine, 2008

Table ME-7.—Area of accessible forest land by forest-type group and stand-origin, Maine, 2008

Table ME-8.—Area of accessible forest land disturbed annually by forest-type group and disturbance class, Maine, 2008

Table ME-9.—Area of timberland by forest-type group and stand-size class, Maine, 2008

Number

Table ME-10.—Number of live trees on forest land by species group and diameter class, Maine, 2008

Table ME-11.—Number of growing-stock trees on timberland by species group and diameter class, Maine, 2008

Volume

Growth, Mortality, and Removals

Weight

Table ME-31.—Aboveground dry weight of all live trees by owner class and forest-land status, Maine, 2008

Table ME-32.—Aboveground dry weight of all live trees on forest land by species group and diameter class, Maine, 2008

County-Level

Table ME-54.—Area of accessible forest land by Forest Survey Unit, county, and forest-land status, Maine, 2008

Table ME-55.—Area of accessible forest land by Forest Survey Unit, county, ownership group, and forest-land status, Maine, 2008

Table ME-57.—Area of timberland by Forest Survey Unit, county, and stand-size class, Maine, 2008

Table ME-58.—Area of timberland by Forest Survey Unit, county, and stocking class, Maine, 2008

Table ME-59.—Net volume of growing stock and sawtimber (International ¼ inch-rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2008

Table ME-59a.—Net volume of growing stock and sawtimber (Doyle rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2008

Table ME-60.—Average annual net growth of growing stock and sawtimber (International ¼ inch-rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Table ME-60a.—Average annual net growth of growing stock and sawtimber (Doyle rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Table ME-61.—Average annual removals of growing stock and sawtimber (International ¼ inch-rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Table ME-61a.—Average annual removals of growing stock and sawtimber (Doyle rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Table ME-65.—Sampling errors, in percent, for net volume, average annual net growth, average annual removals, and average annual mortality on timberland, and forest and timberland area by inventory unit and county, Maine, 2008

*All tables contain forest attribute estimates for Maine for measurements taken from 2004 to 2008, except where indicated
**Gaps in enumeration of tables are placeholders for future tables such as forest health indicator population estimates (e.g., downed woody material)

Table A.—Area and number of plots in each stratum, Maine, 2008.

UNIT[a]	Estimation unit[b]	Strata[c]	Area[d] (acres)	Selected[e]	Nonforest office plots[f]	Field check plots[g]	Field check plots measured[h]	Forest plots measured[i]	Forest plots measured for change[j]	Plots not measured[k]
1	Inland Census Water Cnty. Grp. 29	Canopy cover 0 - 81	223,000	32	30	2	2	2	1	0
1	Private Cnty. Grp. 29	Canopy cover 0 - 5	162,000	26	1	25	25	21	25	0
1	Private Cnty. Grp. 29	Canopy cover 51 - 65	119,000	20	0	20	20	20	20	0
1	Private Cnty. Grp. 29	Canopy cover 6 - 50	100,000	16	0	16	16	15	16	0
1	Private Cnty. Grp. 29	Canopy cover 66 - 80	277,000	53	0	53	53	53	53	0
1	Private Cnty. Grp. 29	Canopy cover 81 - 100	880,000	145	0	145	144	144	145	1
1	Public Cnty. Grp. 29	Canopy cover 0 - 66	43,000	7	0	7	7	6	7	0
1	Public Cnty. Grp. 29	Canopy cover 81 - 100	63,000	10	0	10	10	10	10	0
2	Inland Census Water Cnty. Grp. 3	Canopy cover 0 - 5	88,000	12	11	1	1	1	1	0
2	Inland Census Water Cnty. Grp. 3	Canopy cover 6 - 81	13,000	4	0	4	4	3	3	0
2	Private Cnty. Grp. 3	Canopy cover 0 - 5	606,000	105	7	98	98	66	98	0
2	Private Cnty. Grp. 3	Canopy cover 51 - 65	286,000	45	0	45	45	45	45	0
2	Private Cnty. Grp. 3	Canopy cover 6 - 50	197,000	28	0	28	28	26	28	0
2	Private Cnty. Grp. 3	Canopy cover 66 - 80	677,000	103	0	103	102	101	102	1
2	Private Cnty. Grp. 3	Canopy cover 81 - 100	2,340,000	408	0	408	408	408	408	0
2	Public Cnty. Grp. 3	Canopy cover 0 - 51	19,000	5	1	4	4	4	4	0
2	Public Cnty. Grp. 3	Canopy cover 66 - 80	20,000	4	0	4	4	4	4	0
2	Public Cnty. Grp. 3	Canopy cover 81 - 100	125,000	22	0	22	21	21	22	1
3	Inland Census Water Cnty. Grp. 19	Canopy cover 0 - 81	103,000	13	11	2	2	2	2	0
3	Private Cnty. Grp. 19	Canopy cover 0 - 5	237,000	37	4	33	33	26	33	0
3	Private Cnty. Grp. 19	Canopy cover 51 - 65	176,000	26	0	26	25	25	26	1
3	Private Cnty. Grp. 19	Canopy cover 6 - 50	161,000	30	0	30	30	29	29	0
3	Private Cnty. Grp. 19	Canopy cover 66 - 80	395,000	52	0	52	52	50	52	0
3	Private Cnty. Grp. 19	Canopy cover 81 - 100	1,113,000	201	0	201	198	198	198	3
3	Public Cnty. Grp. 19	Canopy cover 0 - 66	33,000	5	0	5	5	5	5	0
3	Public Cnty. Grp. 19	Canopy cover 81 - 100	58,000	14	0	14	14	14	14	0
4	Inland Census Water Cnty. Grp. 9	Canopy cover 0 - 81	192,000	38	36	2	2	1	1	0
4	Private Cnty. Grp. 9	Canopy cover 0 - 5	105,000	11	3	8	8	5	8	0
4	Private Cnty. Grp. 9	Canopy cover 51 - 65	63,000	5	0	5	5	5	5	0
4	Private Cnty. Grp. 9	Canopy cover 6 - 50	54,000	9	0	9	9	9	9	0
4	Private Cnty. Grp. 9	Canopy cover 66 - 80	138,000	26	0	26	25	25	26	1
4	Private Cnty. Grp. 9	Canopy cover 81 - 100	561,000	99	0	99	99	99	99	0
4	Public Cnty. Grp. 9	Canopy cover 0 - 66	28,000	6	0	6	6	4	6	0
4	Public Cnty. Grp. 9	Canopy cover 81 - 100	67,000	8	0	8	8	8	8	0

(Table A continued on next page)

(Table A continued)

UNIT[a]	Estimation unit[b]	Strata[c]	Area[d] (acres)	Selected[e]	Nonforest office plots[f]	Field check plots[g]	Field check plots measured[h]	Forest plots measured[i]	Forest plots measured for change[j]	Plots not measured[k]
5	Inland Census Water Cnty. Grp. 21	Canopy cover 0 - 81	263,000	36	34	2	2	1	1	0
5	Private Cnty. Grp. 21	Canopy cover 0 - 5	214,000	47	2	45	45	44	45	0
5	Private Cnty. Grp. 21	Canopy cover 51 - 65	156,000	20	0	20	20	19	20	0
5	Private Cnty. Grp. 21	Canopy cover 6 - 50	95,000	18	0	18	18	18	18	0
5	Private Cnty. Grp. 21	Canopy cover 66 - 80	428,000	63	0	63	63	62	63	0
5	Private Cnty. Grp. 21	Canopy cover 81 - 100	1,258,000	230	0	230	230	230	229	0
5	Public Cnty. Grp. 21	Canopy cover 0 - 66	72,000	8	0	8	7	7	7	1
5	Public Cnty. Grp. 21	Canopy cover 81 - 100	316,000	57	0	57	56	56	57	1
6	Inland Census Water Cnty. Grp. 13	Canopy cover 0 - 81	48,000	9	9	0	0	0	0	0
6	Inland Census Water Cnty. Grp. 15	Canopy cover 0 - 81	50,000	9	9	0	0	0	0	0
6	Inland Census Water Cnty. Grp. 27, 11	Canopy cover 0 - 81	80,000	8	6	2	2	2	2	0
6	Private Cnty. Grp. 11	Canopy cover 0 - 5	121,000	25	3	22	22	9	22	0
6	Private Cnty. Grp. 11	Canopy cover 6 - 51	70,000	6	1	5	5	4	5	0
6	Private Cnty. Grp. 11	Canopy cover 66 - 80	111,000	24	0	24	24	23	24	0
6	Private Cnty. Grp. 11	Canopy cover 81 - 100	239,000	37	0	37	37	37	36	0
6	Private Cnty. Grp. 13	Canopy cover 0 - 5	51,000	9	1	8	8	4	8	0
6	Private Cnty. Grp. 13	Canopy cover 51 - 65	21,000	4	0	4	4	3	4	0
6	Private Cnty. Grp. 13	Canopy cover 6 - 50	18,000	4	0	4	4	4	4	0
6	Private Cnty. Grp. 13	Canopy cover 66 - 80	39,000	5	0	5	5	5	5	0
6	Private Cnty. Grp. 13	Canopy cover 81 - 100	95,000	16	0	16	16	16	16	0
6	Private Cnty. Grp. 15	Canopy cover 0 - 5	47,000	8	1	7	7	3	7	0
6	Private Cnty. Grp. 15	Canopy cover 6 - 51	31,000	6	0	6	6	6	6	0
6	Private Cnty. Grp. 15	Canopy cover 66 - 80	50,000	6	0	6	6	6	6	0
6	Private Cnty. Grp. 15	Canopy cover 81 - 100	162,000	26	0	26	26	26	26	0
6	Private Cnty. Grp. 27	Canopy cover 0 - 5	68,000	10	3	7	7	4	7	0
6	Private Cnty. Grp. 27	Canopy cover 6 - 51	59,000	9	0	9	9	9	9	0
6	Private Cnty. Grp. 27	Canopy cover 66 - 80	68,000	15	0	15	14	14	15	1
6	Private Cnty. Grp. 27	Canopy cover 81 - 100	259,000	46	0	46	44	44	45	2
6	Public Cnty. Grp. 11, 15, 27, 13	Canopy cover 0 - 81	40,000	6	0	6	6	6	6	0
7	Inland Census Water Cnty. Grp. 25	Canopy cover 0 - 81	108,000	14	14	0	0	0	0	0
7	Private Cnty. Grp. 25	Canopy cover 0 - 5	344,000	64	1	63	63	57	63	0
7	Private Cnty. Grp. 25	Canopy cover 51 - 65	190,000	34	0	34	34	34	34	0
7	Private Cnty. Grp. 25	Canopy cover 6 - 50	136,000	16	1	15	14	13	14	1
7	Private Cnty. Grp. 25	Canopy cover 66 - 80	481,000	80	0	80	80	80	79	0

(Table A continued on next page)

(Table A continued)

UNIT[a]	Estimation unit[b]	Strata[c]	Area[d] (acres)	Selected[e]	Nonforest office plots[f]	Field check plots[g]	Field check plots measured[h]	Forest plots measured[i]	Forest plots measured for change[j]	Plots not measured[k]
7	Private Cnty. Grp. 25	Canopy cover 81 - 100	1,230,000	219	0	219	217	217	218	2
7	Public Cnty. Grp. 25	Canopy cover 0 - 66	47,000	8	0	8	8	7	8	0
7	Public Cnty. Grp. 25	Canopy cover 81 - 100	86,000	9	0	9	9	9	9	0
8	Inland Census Water Cnty. Grp. 1, 23	Canopy cover 0 - 81	46,000	5	5	0	0	0	0	0
8	Inland Census Water Cnty. Grp. 31	Canopy cover 0 - 81	20,000	4	4	0	0	0	0	0
8	Inland Census Water Cnty. Grp. 5	Canopy cover 0 - 81	123,000	20	18	2	2	1	2	0
8	Private Cnty. Grp. 1	Canopy cover 0 - 5	76,000	16	2	14	14	9	13	0
8	Private Cnty. Grp. 1	Canopy cover 6 - 51	48,000	10	0	10	10	9	10	0
8	Private Cnty. Grp. 1	Canopy cover 66 - 80	70,000	11	0	11	11	11	11	0
8	Private Cnty. Grp. 1	Canopy cover 81 - 100	101,000	15	0	15	15	15	15	0
8	Private Cnty. Grp. 23	Canopy cover 0 - 51	54,000	7	1	6	6	3	6	0
8	Private Cnty. Grp. 23	Canopy cover 66 - 80	38,000	6	0	6	6	6	6	0
8	Private Cnty. Grp. 23	Canopy cover 81 - 100	62,000	13	0	13	13	13	13	0
8	Private Cnty. Grp. 31	Canopy cover 0 - 5	131,000	16	2	14	13	6	13	1
8	Private Cnty. Grp. 31	Canopy cover 6 - 51	79,000	9	0	9	9	8	9	0
8	Private Cnty. Grp. 31	Canopy cover 66 - 80	95,000	26	0	26	26	26	26	0
8	Private Cnty. Grp. 31	Canopy cover 81 - 100	303,000	57	0	57	56	55	55	1
8	Private Cnty. Grp. 5	Canopy cover 0 - 5	128,000	21	0	21	21	6	21	0
8	Private Cnty. Grp. 5	Canopy cover 51 - 65	38,000	5	0	5	5	5	5	0
8	Private Cnty. Grp. 5	Canopy cover 6 - 50	36,000	8	0	8	8	5	8	0
8	Private Cnty. Grp. 5	Canopy cover 66 - 80	90,000	14	0	14	14	14	14	0
8	Private Cnty. Grp. 5	Canopy cover 81 - 100	221,000	43	0	43	43	42	43	0
8	Public Cnty. Grp. 1, 23, 5, 31	Canopy cover 0 - 81	60,000	4	0	4	4	4	4	0
9	Inland Census Water Cnty. Grp. 17	Canopy cover 0 - 81	62,000	6	4	2	2	2	1	0
9	Inland Census Water Cnty. Grp. 7	Canopy cover 0 - 81	30,000	8	8	0	0	0	0	0
9	Private Cnty. Grp. 17	Canopy cover 0 - 5	108,000	16	0	16	16	9	16	0
9	Private Cnty. Grp. 17	Canopy cover 51 - 65	61,000	9	0	9	9	9	9	0
9	Private Cnty. Grp. 17	Canopy cover 6 - 50	40,000	5	0	5	5	4	5	0
9	Private Cnty. Grp. 17	Canopy cover 66 - 80	183,000	33	0	33	32	32	33	1
9	Private Cnty. Grp. 17	Canopy cover 81 - 100	818,000	142	0	142	141	141	141	1
9	Private Cnty. Grp. 7	Canopy cover 0 - 5	79,000	10	0	10	10	6	10	0
9	Private Cnty. Grp. 7	Canopy cover 51 - 65	63,000	14	0	14	14	13	14	0
9	Private Cnty. Grp. 7	Canopy cover 6 - 50	34,000	5	0	5	5	5	5	0
9	Private Cnty. Grp. 7	Canopy cover 66 - 80	194,000	30	0	30	30	30	30	0

(Table A continued on next page)

(Table A continued)

UNIT[a]	Estimation unit[b]	Strata[c]	Area[d] (acres)	Selected[e]	Nonforest office plots[f]	Field check plots[g]	Field check plots measured[h]	Forest plots measured[i]	Forest plots measured for change[j]	Plots not measured[k]
9	Private Cnty. Grp. 7	Canopy cover 81 - 100	647,000	109	0	109	108	108	109	1
9	Public Cnty. Grp. 17	Canopy cover 0 - 81	71,000	11	0	11	11	11	11	0
9	Public Cnty. Grp. 7	Canopy cover 0 - 81	69,000	11	0	11	11	11	11	0
9	White Mountain NF	Canopy cover 0 - 81	49,000	7	0	7	7	7	7	0
State Total All Ownerships		All Strata	21,200,000	3,562	233	3,329	3,308	3,160	3,307	21

[a]The following table lisits the counties in each group used to define the estimation strata used here.

Unit Number	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9
County Group Name	Washington	Aroostook	Penobscot	Hancock	Piscataquis	Capitol	Somerset	Casco Bay	Western
County Name	Washington	Aroostook	Penobscot	Hancock	Piscataquis	Kennebec	Somerset	Androscoggin	Franklin
						Knox		Cumberland	Oxford
						Lincoln		Sagadahoc	
						Waldo		York	

[b]Ownership layer - Classification based on Protected Areas Database.

[c]Classified NLCD layer - Classification based on the 1992 NLCD classification and 2-pixel edge zones.

[d]Area (Acres) - Total area defined by the intersection of the ownership and classified NLCD layers within the group of counties specified.

[e]Selected - Total number of plots selected to be sampled.

[f]Nonforest Office Plots - Selected plots who's observed classification as nonforest is based upon examination of aerial photos or digital orthoquads.

[g]Field Check Plots - Selected plots that required field measurement.

[h]Field Checked Plots Measured - Field check plots where the measurement was successful. Excludes field plots that were hazardious or denied access.

[i]Forest Plots Measured - Field checked plots where the forest condition was found to be present on the plot and the measurement was completed in the 2004-2008 inventory.

[j]Forest Plots Measured for Change - Field checked plots measured in both the 2003 inventory and the 2008 inventory where forest condition was found to be present on the plot and the measurement was completed Components of change are assessed on these plot.

[k]Plots Not Measured - Plots selected for field measurement, but not measured due to hazardous conditions or denied access.

Table B.—State-level estimates of major forest resource attributes and their sampling errors, Maine, 2008.

Item	State total	Sampling error
Growing stock on timberland	*million cubic feet*	*percent*
Volume	23,148	1.3
Average annual net growth	575	12.1
Average annual removals	562	13.9
Average annual mortality	269	9.5
Sawtimber on timberland	*million board feet*[a]	
Volume	56,599	1.9
Average annual net growth	1770	3.0
Average annual removals	1676	6.5
Average annual mortality	579	5.6
Area	*thousand acres*	
Forest land	17,658	0.4
Timberland	17,149	0.5
Biomass (above ground live trees)	*million dry tons*	
Forest land	664	1.0
Timberland	647	1.0

[a] International ¼-inch rule.

Table C.—Measurement quality objective (MQO) tolerance compliance based on blind check plots, Maine, 2008.

Variable	Tolerance	Objective	Maine		All NRS States	
			Data within tolerance	Records	Data within tolerance	Records
Plot Level Variables						
National Variables						
Distance to Road	No Tolerance	90.0%	93.3%	30	83.3%	1,903
Water on Plot	No Tolerance	90.0%	90.0%	30	87.1%	1,903
Regional Variables						
ELEVATION_GPS	±50 ft	99.0%	96.6%	29	86.5%	1,809
LAT_DECIMAL_DEG	±0.0001 dg	99.0%	100.0%	29	92.4%	1,811
LON_DECIMAL_DEG	±0.0001 dg	99.0%	93.1%	29	90.3%	1,811
LAT_FEET	±140 ft		100.0%	29	99.3%	1,811
LON_FEET	±140 ft		100.0%	29	98.3%	1,811
Number of blind check plots				30		1,903
Condition Level Variables						
National Variables						
Condition Status	No Tolerance	99.0%	100.0%	37	99.1%	3,586
Reserve Status	No Tolerance	99.0%	100.0%	37	99.6%	3,586
Owner Group	No Tolerance	99.0%	100.0%	32	98.3%	1,921
Forest Type (Type)	No Tolerance	95.0%	96.9%	32	85.2%	1,921
Forest Type (Group)	No Tolerance	99.0%	100.0%	32	91.5%	1,921
Stand Size	No Tolerance	99.0%	100.0%	32	88.8%	1,921
Regeneration Status	No Tolerance	99.0%	100.0%	32	98.0%	1,921
Tree Density	No Tolerance	99.0%	100.0%	32	97.1%	1,921
Owner Class	No Tolerance	99.0%	100.0%	32	95.1%	1,921
Owner Status	No Tolerance	99.0%	96.9%	32	96.5%	1,921
Regeneration Species	No Tolerance	99.0%	100.0%	32	98.1%	1,921
Stand Age	±10 %	95.0%	100.0%	32	77.5%	1,921
Disturbance 1	No Tolerance	99.0%	81.3%	32	88.0%	1,905
Disturbance Year 1	±1 yr	99.0%	.	.	50.0%	26
Disturbance 2	No Tolerance	99.0%	100.0%	6	88.1%	244
Disturbance Year 2	±1 yr	99.0%	.	.	.	.
Disturbance 3	No Tolerance	99.0%	.	.	96.6%	29

(Table C continued on next page)

(Table C Continued)

Variable	Tolerance	Objective	Maine		All NRS States	
			Data within tolerance	Records	Data within tolerance	Records
Disturbance Year 3	±1 yr	99.0%	.	.	.	.
Treatment 1	No Tolerance	99.0%	96.9%	32	96.3%	1,905
Treatment Year 1	±1 yr	99.0%	100.0%	5	95.8%	119
Treatment 2	No Tolerance	99.0%	100.0%	6	84.0%	188
Treatment Year 2	±1 yr	99.0%	.	.	100.0%	12
Treatment 3	No Tolerance	99.0%	.	.	97.6%	41
Treatment Year 3	±1 yr	99.0%	.	.	100.0%	1
Physiographic Class	No Tolerance	80.0%	87.5%	32	80.2%	1,921
Present Nonforest Use	No Tolerance	99.0%	100.0%	37	92.9%	3,586
Regional Variables						
NC_LAND_USE	No Tolerance	99.0%	100.0%	37	93.0%	3,586
Number of blind check plots				37		3,586
Boundary Level Variables						
National Variables						
Boundary Change	No Tolerance	99.0%	100.0%	4	79.2%	562
Constrasting Condition	No Tolerance	99.0%	100.0%	4	92.5%	562
Left Azimuth	±10 degrees	90.0%	100.0%	4	82.7%	562
Corner Mapped	No Tolerance	90.0%	100.0%	4	96.3%	562
Corner Azimuth	±10 degrees	90.0%	.	.	91.7%	36
Corner Distance	±1 ft	90.0%	.	.	86.1%	36
Right Azimuth	±10 degrees	90.0%	75.0%	4	83.6%	562
Number of blind check plots				4		562
Subplot Level Variables						
National Variables						
Subplot Center Cond	No Tolerance	99.0%	98.3%	120	97.4%	7,488
Microplot Center Cond	No Tolerance	99.0%	98.3%	120	97.2%	7,488
Slope	±10 %	90.0%	98.3%	116	98.1%	7,067
Aspect	±10 º	90.0%	93.7%	111	89.4%	6,659
Snow/Water Depth	±0.5 ft		91.7%	120	69.1%	7,488
Number of blind check plots				120		7,488

(Table C continued on next page)

(Table C Continued)

Variable	Tolerance	Objective	Maine		All NRS States	
			Data within tolerance	Records	Data within tolerance	Records
Tree Level Variables						
National Variables						
DBH	±0.1 /20 in.	95.0%	97.2%	538	93.7%	31,293
DRC	±0.1 /20 in.	95.0%	.	.	91.7%	24
Azimuth	±10 º	90.0%	99.2%	639	99.1%	32,900
Horizontal Distance	±0.2 /1.0 ft	90.0%	99.1%	639	98.5%	32,900
Species	No Tolerance	95.0%	97.8%	639	97.5%	32,900
Tree Genus	No Tolerance	99.0%	99.1%	639	99.5%	32,855
Tree Status	No Tolerance	95.0%	99.5%	639	98.9%	32,900
Rotten/Missing Cull	±10 %	90.0%	96.5%	370	98.6%	21,153
Total Length	±10 %	90.0%	72.4%	369	81.1%	20,703
Actual Length	±10 %	90.0%	52.9%	51	76.0%	2,375
Compacted Crown Ratio	±10 %	80.0%	82.4%	495	84.2%	26,967
Uncompacted Crown Ratio (P3)	±10 %	90.0%	.	.	80.9%	1,027
Crown Class	No Tolerance	85.0%	84.2%	495	82.1%	26,967
Decay Class	±1 class	90.0%	95.9%	97	94.5%	4,191
Cause of Death	No Tolerance	80.0%	80.4%	97	86.2%	4,191
Condition	No Tolerance	99.0%	99.4%	639	97.7%	32,900
Mortality Year	±1 yr	70.0%	.	.	95.5%	1,372
Crown position	No Tolerance		.	.	86.9%	834
Crown light exposure	±1 class	85.0%	.	.	91.3%	1,027
Sapling crown vigor class	No Tolerance	85.0%	.	.	77.7%	193
Crown density	±10 %	90.0%	.	.	79.7%	834
Crown dieback	±10 %	90.0%	.	.	97.2%	834
Transparency	±10 %	90.0%	.	.	91.7%	834
Regional Variables						
NC Tree Class	No Tolerance	90.0%	92.8%	541	91.1%	29,985
NC Damage Agent 1	No Tolerance	90.0%	90.1%	495	90.9%	26,967
NC Damage Agent 2	No Tolerance	90.0%	67.4%	92	86.1%	4,920
Missouri damage code	No Tolerance		.	.	.	.

(Table C continued on next page)

(Table C Continued)

Variable	Tolerance	Objective	Maine		All NRS States	
			Data within tolerance	Records	Data within tolerance	Records
Utilization	No Tolerance	99.0%	100.0%	48	100.0%	1,003
NC Tree Grade	No Tolerance	90.0%	.	.	68.5%	2,747
DBH-live & decay code 1-2 trees	±0.1 /20 in.	95.0%	97.0%	503	93.8%	28,413
DBH-decay code 3-4-5 trees	±1 /20 in.	95.0%	100.0%	35	99.2%	1,300
Total length trees 40 ft plus	±10 %	90.0%	78.6%	238	82.5%	16,832
Total length trees less than 40 ft	±10 %	90.0%	61.1%	131	74.8%	3,871
Total Length trees lt 5 inch	±10 %	90.0%	65.4%	26	64.3%	277
Number of blind check plots				639		32,900
Seedling Level Variable						
National Variables						
Species	No Tolerance	85.0%	97.2%	142	91.0%	5,518
Genus	No Tolerance	90.0%	98.6%	142	96.7%	5,518
Seedling Count	±20 %	90.0%	81.0%	142	67.7%	5,518
Seedling Count coded	No Tolerance	90.0%	86.6%	142	72.5%	5,518
Number of blind check plots				142		5,518
Site Tree Level Variable						
National Variables						
Condition list	No Tolerance	99.0%	100.0%	12	93.2%	2,976
Diameter	±0.1 /20 in.	95.0%	100.0%	12	91.6%	2,935
Species	No Tolerance	95.0%	100.0%	12	98.1%	2,976
Genus	No Tolerance	99.0%	100.0%	12	99.8%	2,976
Azimuth	±10 degrees	90.0%	100.0%	12	98.7%	2,935
Distance	±5 feet	90.0%	100.0%	12	99.5%	2,935
Total_length	±10 percent	90.0%	100.0%	12	92.7%	2,935
Diameter_age	±5 years	95.0%	100.0%	12	92.3%	2,935
Regional Variables						
Site_index_method	No Tolerance	99.0%	100.0%	12	99.9%	2,976
Field_site_index	No Tolerance	99.0%	100.0%	12	99.8%	2,976
Number of blind check plots				**12**		**2,976**

Table D.—Observed relative bias values (Average [field crew - QA crew]) for measurement variables on blind check plots, Maine, 2008.

Variable	Units of measure	Maine				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Plot Level Variables									
National Variables									
Distance to Road	code	0.00	-0.10	0.10	30	-0.04	-0.07	-0.01	1,903
Water on Plot	code	-0.60	-1.45	0.00	30	0.12	0.05	0.20	1,903
Regional Variables									
ELEVATION_GPS	feet	0.90	-6.10	8.59	29	60.26	1.35	196.53	1,809
LAT_DECIMAL_DEG	degree	0.00	0.00	0.00	29	0.00	0.00	0.00	1,811
LON_DECIMAL_DEG	degree	0.00	0.00	0.00	29	0.46	0.00	1.39	1,811
LAT_FEET	feet	-3.39	-8.03	0.68	29	-77.01	-225.30	-1.00	1,811
LON_FEET	feet	7.58	0.78	14.32	29	5,576.19	5.59	16,662.63	1,811
Number of blind check plots				30		1,903	30		1,903
Condition Level Variables									
National Variables									
Condition Status	code	0.00	0.00	0.00	37	-0.01	-0.01	0.00	3,586
Reserve Status	code	0.00	0.00	0.00	37	0.00	0.00	0.00	3,586
Owner Group	code	0.00	0.00	0.00	32	0.24	0.07	0.45	1,921
Forest Type (Type)	code	0.03	0.00	0.09	32	10.41	5.64	15.85	1,921
Forest Type (Group)	code	0.00	0.00	0.00	32	10.57	5.67	16.03	1,921
Stand Size	code	0.00	0.00	0.00	32	0.00	-0.01	0.02	1,921
Regeneration Status	code	0.00	0.00	0.00	32	0.00	-0.01	0.01	1,921
Tree Density	code	0.00	0.00	0.00	32	0.00	-0.01	0.01	1,921
Owner Class	code	0.00	0.00	0.00	32	0.24	0.04	0.47	1,921
Owner Status	code	-0.03	-0.09	0.00	32	0.03	0.02	0.04	1,921
Regeneration Species	code	0.00	0.00	0.00	32	0.14	-2.02	2.06	1,921
Stand Age	years	0.00	0.00	0.00	32	-0.56	-1.60	0.19	1,921
Disturbance 1	code	-1.88	-3.28	-0.63	32	1.38	0.81	1.95	1,905
Disturbance Year 1	year					3,382.54	1,844.37	5,227.62	26
Disturbance 2	code	0.00	0.00	0.00	6	-2.25	-4.01	-0.72	244
Disturbance Year 2	year								

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Maine				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Disturbance 3	code					-2.76	-8.28	0.00	29
Disturbance Year 3	year								
Treatment 1	code	-0.31	-1.09	0.00	32	0.15	0.01	0.30	1,905
Treatment Year 1	year	0.00	0.00	0.00	5	0.01	-0.11	0.12	119
Treatment 2	code	0.00	0.00	0.00	6	2.29	-0.05	4.68	188
Treatment Year 2	year					0.25	0.00	0.50	12
Treatment 3	code					0.24	0.00	0.73	41
Treatment Year 3	year					0.00	0.00	0.00	1
Physiographic Class	code	-0.06	-0.19	0.06	32	0.15	-0.01	0.33	1,921
Present Nonforest Use	code	0.00	0.00	0.00	37	0.17	0.03	0.30	3,586
Regional Variables									
NC_LAND_USE	code	0.00	0.00	0.00	37	-0.12	-0.24	-0.01	3,586
Number of blind check plots				37					3,586
Boundary Level Variables									
National Variables									
Boundary Change	code	0.00	0.00	0.00	4	0.15	0.10	0.21	562
Constrasting Condition	cond	0.00	0.00	0.00	4	0.01	-0.01	0.03	562
Left Azimuth	degrees	0.00	0.00	0.00	4	1.51	-1.94	5.10	562
Corner Mapped	code	0.00	0.00	0.00	4	0.00	-0.02	0.01	562
Corner Azimuth	degrees					-10.36	-26.85	0.38	36
Corner Distance	feet					-0.19	-1.13	0.51	36
Right Azimuth	degrees	5.50	0.00	16.50	4	-1.73	-5.47	2.42	562
Number of blind check plots				4					562
Subplot Level Variables									
National Variables									
Subplot Center Cond	code	0.00	-0.03	0.02	120	0.00	0.00	0.01	7,488
Microplot Center Cond	code	0.00	-0.03	0.02	120	0.00	0.00	0.01	7,488
Slope	percent	0.06	-0.50	0.79	116	0.06	-0.08	0.17	7,067

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Maine				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Aspect	degrees	4.39	-0.10	10.31	111	0.42	-0.62	1.47	6,659
Snow/Water Depth	feet	0.06	-0.58	0.89	120	-0.11	-0.22	0.01	7,488
Number of blind check plots				120					7,488
Tree Level Variables									
National Variables									
DBH	inches	0.00	-0.01	0.01	538	-0.07	-0.08	-0.06	31,293
DRC	inches					-0.04	-0.16	0.04	24
Azimuth	degrees	-0.55	-1.46	0.11	639	0.10	0.02	0.17	32,900
Horizontal Distance	feet	0.02	-0.01	0.05	639	0.00	-0.01	0.01	32,900
Species	code	-2.11	-4.68	0.23	639	0.11	-0.22	0.39	32,900
Tree Genus	code	-2.10	-4.66	0.26	639	0.09	-0.17	0.37	32,855
Tree Status	code	0.00	-0.01	0.00	639	0.00	0.00	0.00	32,900
Rotten/Missing Cull	percent	0.22	-0.36	0.88	370	-0.06	-0.10	-0.01	21,153
Total Length	feet	-2.48	-3.60	-1.29	369	0.16	-0.07	0.38	20,703
Actual Length	feet	-12.16	-22.59	-4.47	51	-2.55	-3.87	-1.26	2,375
Compacted Crown Ratio	percent	0.81	0.08	1.64	495	-0.13	-0.25	-0.01	26,967
Uncompacted Crown Ratio (P3)	percent					-0.15	-1.01	0.61	1,027
Crown Class	code	0.01	-0.02	0.06	495	-0.04	-0.04	-0.03	26,967
Decay Class	code	0.09	-0.07	0.24	97	0.01	-0.02	0.03	4,191
Cause of Death	code	0.52	-0.82	1.91	97	2.38	1.89	2.80	4,191
Condition	code	-0.01	-0.01	0.00	639	-0.01	-0.01	-0.01	32,900
Mortality Year	year					0.08	0.04	0.12	1,372
Crown position	code					-0.09	-0.11	-0.06	834
Crown light exposure	code					0.02	-0.04	0.06	1,027
Sapling crown vigor class	code					-0.10	-0.18	-0.02	193
Crown density	percent					0.91	0.30	1.68	834
Crown dieback	percent					-0.57	-0.97	-0.11	834
Transparency	percent					-1.09	-1.65	-0.52	834

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Maine				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Regional Variables									
NC Tree Class	code	0.05	0.01	0.09	541	-0.09	-0.12	-0.05	29,985
NC Damage Agent 1	code	-2.67	-12.24	5.37	495	4.42	3.24	5.68	26,967
NC Damage Agent 2	code	7.83	-35.00	55.82	92	11.34	7.57	15.56	4,920
Missouri damage code	code								
Utilization	code	0.00	0.00	0.00	48	0.00	0.00	0.00	1,003
NC Tree Grade	code					3.49	-1.67	7.90	2,747
DBH-live & decay code 1-2 trees	inches	0.00	-0.01	0.01	503	-0.06	-0.08	-0.06	28,413
DBH-decay code 3-4-5 trees	inches	-0.04	-0.09	0.00	35	-0.03	-0.06	-0.02	1,300
Total length trees 40 ft plus	feet	-0.33	-1.42	0.74	238	0.71	0.58	0.86	16,832
Total length trees less than 40 ft	feet	-6.39	-8.59	-4.54	131	-2.22	-3.32	-1.12	3,871
Total Length trees lt 5 inch	feet	-4.38	-8.18	-0.88	26	2.44	0.65	4.14	277
Number of blind check plots				639					32,900
Seedling Level Variable									
National Variables									
Species	code	0.00	-0.03	0.03	142	0.00	-0.01	0.01	5,518
Genus	code	0.00	-0.02	0.02	142	0.00	-0.01	0.00	5,518
Seedling Count	number	-8.80	-16.25	-2.98	142	-15.57	-23.17	-10.43	5,518
Seedling Count coded	number	-0.05	-0.18	0.06	142	0.00	-0.02	0.02	5,518
Number of blind check plots				142					5,518
Site Tree Level Variable									
National Variables									
Condition list	code	0.00	0.00	0.00	12	-1.62	-4.12	0.13	2,976
Diameter	inches	0.00	0.00	0.00	12	0.00	-0.01	0.00	2,935
Species	code	0.00	0.00	0.00	12	-0.14	-0.30	-0.01	2,976
Genus	code	0.00	0.00	0.00	12	-0.15	-0.32	-0.02	2,976
Azimuth	degrees	-0.08	-0.25	0.00	12	0.03	-0.36	0.43	2,935
Distance	feet	0.01	0.00	0.03	12	0.00	-0.04	0.04	2,935

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Maine				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Total_length	feet	0.17	0.00	0.50	12	-0.15	-0.37	0.06	2,935
Diameter_age	years	0.00	0.00	0.00	12	0.08	-0.06	0.23	2,935
Regional Variables									
Site_index_method	code	0.00	0.00	0.00	12	0.00	0.00	0.00	2,976
Field_site_index	feet	0.00	0.00	0.00	12	0.07	0.01	0.16	2,976
Number of blind check plots					12				2,976

Table E.—FIA nonresponse by ownership, Maine, 2008.

Owner	Strata	Plots Selected	Observed	Denied Access	Hazardous	Other	Response Rate (%)
				number of plots			
Inland Water	1	12	12	0	0	0	100
Inland Water	2,345	4	4	0	0	0	100
Inland Water	12,345	202	202	0	0	0	100
Private	1	421	418.4	1.8	0.9	0	99.4
Private	2	139	137	1	1	0	98.6
Private	3	182	179.8	1	1.3	0	98.8
Private	4	547	540.1	3	3.9	0	98.7
Private	5	1,806	1,789.6	10	6.4	0	99.1
Private	23	40	39.8	0	0.3	0	99.4
Private	123	7	7	0	0	0	100
Public	4	4	4	0	0	0	100
Public	5	120	118	0	2	0	98.3
Public	123	5	5	0	0	0	100
Public	1,234	34	32.8	0	1.3	0	96.3
Public	12,345	32	31.5	0	0.5	0	98.4
White Mountain NF	12,345	7	7	0	0	0	100
Total Sampled		**3,562**	**3,528**	**16.8**	**17.6**		**99**

Table ME-1.—Percentage of area by land status, Maine, 2008

Land status	Percentage of area
Accessible forest land	
Unreserved forest land	
Timberland	80.1
Unproductive	0.9
Total unreserved forest land	81.0
Reserved forest land	
Productive	1.3
Unproductive	0.1
Total reserved forest land	1.4
All accessible forest land	82.4
Nonforest and other land	
Nonforest land	9.4
Water	
Census	6.9
Non-Census	0.4
All nonforest and other land	16.6
Nonsampled land	
Access denied	0.5
Hazardous conditions	0.5
Other	- -
All land	100.0
Total area (thousands of acres)	21,199

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the percentage rounds to less than 0.1 percent. Columns and rows may not add to their totals due to rounding.

Table ME-2.—Area of accessible forest land, in thousand acres, by owner class and forest-land status, Maine, 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	50.5	- -	50.5	1.8	5.3	7.0	57.5
Other Federal							
National Park Service	- -	- -	- -	39.8	- -	39.8	39.8
Fish and Wildlife Service	50.1	- -	50.1	6.3	- -	6.3	56.5
Department of Defense or Energy	16.3	- -	16.3	- -	- -	- -	16.3
Other Federal	6.0	- -	6.0	- -	3.3	3.3	9.3
State and local government							
State	642.1	7.6	649.8	234.1	10.3	244.5	894.2
Local (county, municipal, etc.)	166.5	- -	166.5	6.0	- -	6.0	172.5
Private							
Undifferentiated private	16,217.1	194.3	16,411.5	- -	- -	- -	16,411.5
All owners	17,148.7	202.0	17,350.6	288.0	18.8	306.9	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-3.—Area of accessible forest land, in thousand acres, by forest-type group and productivity class, Maine, 2008

Forest type group	Site productivity class (cubic feet/acre/year)							All classes
	0-19	20-49	50-84	85-119	120-164	165-224	225+	
White / red / jack pine group	- -	293.7	544.9	149.8	28.0	- -	- -	1,016.4
Spruce / fir group	175.4	2,241.5	2,481.0	835.8	94.9	- -	- -	5,828.6
Loblolly / shortleaf pine group	- -	- -	6.4	- -	- -	- -	- -	6.4
Exotic softwoods group	- -	17.4	7.1	- -	- -	- -	- -	24.5
Oak / pine group	- -	138.4	139.1	92.3	27.9	- -	- -	397.7
Oak / hickory group	- -	166.1	122.7	35.0	12.8	- -	- -	336.5
Elm / ash / cottonwood group	23.7	214.2	99.2	70.4	11.1	- -	- -	418.6
Maple / beech / birch group	- -	3,685.6	2,298.0	1,050.7	160.4	- -	- -	7,194.7
Aspen / birch group	16.6	1,015.9	804.5	374.5	54.6	- -	- -	2,266.1
Other hardwoods group	- -	67.2	38.1	19.3	5.3	- -	- -	129.9
Nonstocked	5.2	21.1	9.0	2.8	- -	- -	- -	38.0
All forest type groups	220.8	7,861.2	6,550.0	2,630.5	395.0	- -	- -	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-4.—Area of accessible forest land, in thousand acres, by forest-type group, ownership group, and land status, Maine, 2008

Forest type group	Forest Service		Other Federal		State and local government		Undifferentiated private		All forest land
	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	
White / red / jack pine group	- -	- -	1.8	6.3	22.2	9.7	976.4	- -	1,016.4
Spruce / fir group	- -	7.0	17.3	18.4	309.0	100.3	5,213.4	163.2	5,828.6
Loblolly / shortleaf pine group	- -	- -	- -	- -	- -	- -	6.4	- -	6.4
Exotic softwoods group	- -	- -	- -	- -	7.1	- -	17.4	- -	24.5
Oak / pine group	- -	- -	3.4	- -	24.4	- -	370.0	- -	397.7
Oak / hickory group	- -	- -	- -	4.9	37.4	- -	294.3	- -	336.5
Elm / ash / cottonwood group	- -	- -	- -	- -	37.7	- -	357.2	23.7	418.6
Maple / beech / birch group	50.5	- -	24.8	15.0	294.2	82.4	6,727.9	- -	7,194.7
Aspen / birch group	- -	- -	19.1	4.9	66.6	61.7	2,107.5	6.2	2,266.1
Other hardwoods group	- -	- -	6.1	- -	6.1	- -	117.7	- -	129.9
Nonstocked	- -	- -	- -	- -	4.1	4.0	28.8	1.2	38.0
All forest type groups	50.5	7.0	72.4	49.4	808.6	258.1	16,217.1	194.3	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-5.—Area of accessible forest land, in thousand acres, by forest-type group and stand-size class, Maine, 2008

Forest-type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked	
White / red / jack pine group	747.0	236.9	32.4	- -	- -	1,016.4
Spruce / fir group	1,623.6	1,674.6	2,530.4	- -	- -	5,828.6
Loblolly / shortleaf pine group	- -	6.4	- -	- -	- -	6.4
Exotic softwoods group	- -	18.8	5.8	- -	- -	24.5
Oak / pine group	228.2	123.3	46.2	- -	- -	397.7
Oak / hickory group	140.8	184.7	11.0	- -	- -	336.5
Elm / ash / cottonwood group	61.5	219.0	138.0	- -	- -	418.6
Maple / beech / birch group	2,597.1	3,056.0	1,541.6	- -	- -	7,194.7
Aspen / birch group	235.7	853.8	1,176.5	- -	- -	2,266.1
Other hardwoods group	- -	11.5	118.4	- -	- -	129.9
Nonstocked	- -	- -	- -	- -	38.0	38.0
All forest-type groups	5,634.0	6,385.1	5,600.4	- -	38.0	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-6.—Area of accessible forest land, in thousand acres, by forest-type group and stand-age class, Maine, 2008

Forest type group	Non stocked	Stand-age class (years)											All classes
		1-20	21-40	41-60	61-80	81-100	101-120	121-140	141-160	161-180	181-200	201+	
White / red / jack pine group	- -	14.4	136.8	252.7	325.3	178.1	76.8	9.2	12.0	11.2	- -	- -	1,016.4
Spruce / fir group	- -	817.5	1,318.7	915.4	1,154.2	989.6	385.9	153.2	63.3	23.1	7.6	- -	5,828.6
Loblolly / shortleaf pine group	- -	- -	- -	6.4	- -	- -	- -	- -	- -	- -	- -	- -	6.4
Exotic softwoods group	- -	7.2	17.3	- -	- -	- -	- -	- -	- -	- -	- -	- -	24.5
Oak / pine group	- -	15.6	45.0	157.0	159.0	9.4	11.7	- -	- -	- -	- -	- -	397.7
Oak / hickory group	- -	1.7	17.3	154.5	151.6	11.5	- -	- -	- -	- -	- -	- -	336.5
Elm / ash / cottonwood group	- -	16.3	69.3	147.6	122.4	59.8	1.4	- -	1.7	- -	- -	- -	418.6
Maple / beech / birch group	- -	392.0	1,026.8	1,720.9	2,289.6	1,314.0	312.8	110.6	22.2	- -	5.8	- -	7,194.7
Aspen / birch group	- -	322.3	636.4	581.4	504.5	185.6	30.2	- -	- -	5.7	- -	- -	2,266.1
Other hardwoods group	- -	55.6	30.7	40.7	3.0	- -	- -	- -	- -	- -	- -	- -	129.9
Nonstocked	38.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	38.0
All forest type groups	38.0	1,642.6	3,298.3	3,976.6	4,709.7	2,747.9	818.9	272.9	99.2	39.9	13.4	- -	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-7.—Area of accessible forest land, in thousand acres, by forest-type group and stand origin, Maine, 2008

Forest type group	Stand origin		All forest land
	Natural stands	Artificial regeneration	
White / red / jack pine group	936.7	79.7	1,016.4
Spruce / fir group	5,673.4	155.2	5,828.6
Loblolly / shortleaf pine group	6.4	- -	6.4
Exotic softwoods group	- -	24.5	24.5
Oak / pine group	385.6	12.1	397.7
Oak / hickory group	336.5	- -	336.5
Elm / ash / cottonwood group	418.6	- -	418.6
Maple / beech / birch group	7,151.4	43.3	7,194.7
Aspen / birch group	2,235.9	30.2	2,266.1
Other hardwoods group	129.9	- -	129.9
Nonstocked	36.6	1.4	38.0
All forest type groups	17,311.0	346.5	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-8.—Area of accessible forest land disturbed annually, in thousand acres, by forest-type group and primary disturbance class, Maine, 2008

Forest type group	Disturbance class									All forest land
	None	Insects	Disease	Weather	Fire	Domestic animals	Wild animals	Human	Other	
White / red / jack pine group	1,011.3	--	--	--	--	--	--	5.1	--	1,016.4
Spruce / fir group	5,695.1	23.7	--	26.9	5.6	--	15.0	62.3	--	5,828.6
Loblolly / shortleaf pine group	6.4	--	--	--	--	--	--	--	--	6.4
Exotic softwoods group	24.5	--	--	--	--	--	--	--	--	24.5
Oak / pine group	397.7	--	--	--	--	--	--	--	--	397.7
Oak / hickory group	336.5	--	--	--	--	--	--	--	--	336.5
Elm / ash / cottonwood group	409.8	--	--	8.7	--	--	--	--	--	418.6
Maple / beech / birch group	7,043.5	37.7	--	11.4	--	--	19.9	82.1	--	7,194.7
Aspen / birch group	2,228.9	11.8	--	9.4	--	--	12.8	3.2	--	2,266.1
Other hardwoods group	116.1	--	--	6.4	--	--	--	7.5	--	129.9
Nonstocked	38.0	--	--	--	--	--	--	--	--	38.0
All forest type groups	17,308.1	73.2	--	62.8	5.6	--	47.7	160.0	--	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-9.—Area of timberland, in thousand acres, by forest-type group and stand-size class, Maine, 2008

Forest type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked	
White / red / jack pine group	731.0	236.9	32.4	- -	- -	1,000.3
Spruce / fir group	1,544.6	1,639.8	2,355.3	- -	- -	5,539.7
Loblolly / shortleaf pine group	- -	6.4	- -	- -	- -	6.4
Exotic softwoods group	- -	18.8	5.8	- -	- -	24.5
Oak / pine group	228.2	123.3	46.2	- -	- -	397.7
Oak / hickory group	135.9	184.7	11.0	- -	- -	331.7
Elm / ash / cottonwood group	61.5	217.6	115.7	- -	- -	394.9
Maple / beech / birch group	2,535.0	3,029.2	1,533.1	- -	- -	7,097.4
Aspen / birch group	229.2	820.2	1,143.8	- -	- -	2,193.3
Other hardwoods group	- -	11.5	118.4	- -	- -	129.9
Nonstocked	- -	- -	- -	- -	32.9	32.9
All forest type groups	5,465.5	6,288.5	5,361.8	- -	32.9	17,148.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-10.—Number of live trees (at least 1 inch d.b.h./d.r.c.), in thousand trees, on forest land by species group and diameter class, Maine, 2008

Species group	Diameter class (inches)															All classes
	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+	
Softwood species groups																
Eastern softwood species groups																
Other yellow pines	--	--	203	246	435	289	123	176	--	--	--	--	--	--	--	1,471
Eastern white and red pines	219,475	99,020	59,352	37,847	26,570	18,439	12,381	9,170	6,835	4,493	4,176	1,902	374	253	--	500,286
Jack pine	--	--	262	231	--	40	--	--	--	--	--	--	--	--	--	533
Spruce and balsam fir	8,671,712	1,743,001	544,245	245,486	110,316	52,455	22,199	8,272	2,660	1,016	531	--	--	--	--	11,401,893
Eastern hemlock	318,111	110,692	53,086	42,137	30,812	21,352	12,680	6,434	4,012	1,891	1,329	140	41	37	--	602,753
Other eastern softwoods	463,702	151,576	110,962	90,576	62,993	35,201	17,906	8,018	3,133	1,671	842	173	35	--	--	946,787
All softwoods	9,673,000	2,104,288	768,111	416,522	231,124	127,774	65,288	32,070	16,641	9,072	6,878	2,214	449	290	--	13,453,723
Hardwood species groups																
Eastern hardwood species groups																
Select white oaks	2,064	2,522	1,714	561	588	304	182	85	--	--	--	--	--	--	--	8,020
Select red oaks	78,476	31,884	22,817	15,999	11,741	9,292	4,162	2,223	1,660	597	635	204	71	--	--	179,760
Other red oaks	452	480	377	447	340	164	338	87	53	--	--	--	--	--	--	2,738
Hickory	406	--	65	33	--	--	--	--	--	--	--	--	--	--	--	504
Yellow birch	611,346	161,514	57,644	30,494	21,134	15,275	8,410	5,236	3,235	1,312	1,465	577	--	35	35	917,713
Hard maple	396,250	111,511	49,267	38,286	26,023	16,971	10,481	5,660	3,231	1,971	2,048	817	137	34	33	662,717
Soft maple	1,784,475	464,186	179,927	111,488	59,796	32,677	13,494	6,106	3,121	1,057	719	200	34	--	--	2,657,280
Beech	726,092	156,031	64,769	37,055	17,261	8,683	3,909	1,580	275	221	67	--	--	--	--	1,015,944
Ash	290,049	70,262	32,415	17,190	8,884	4,764	2,176	943	531	35	137	33	--	--	--	427,419
Cottonwood and aspen	492,292	128,272	46,166	27,291	19,396	11,742	5,804	3,060	1,520	674	427	131	--	--	--	736,773
Basswood	3,963	875	1,251	844	528	150	109	36	--	--	33	--	--	--	--	7,791
Yellow-poplar	--	--	46	--	--	--	--	--	--	--	--	--	--	--	--	46
Other eastern soft hardwoods	1,266,646	304,211	106,328	54,593	25,207	10,495	4,157	1,359	436	72	200	--	--	--	--	1,773,705
Other eastern hard hardwoods	4,006	684	1,015	429	344	216	--	54	--	--	--	--	--	--	--	6,747
Eastern noncommercial hardwoods	1,300,614	139,286	21,226	5,684	1,473	306	111	75	--	--	--	--	--	--	--	1,468,775
All hardwoods	6,957,131	1,571,717	585,026	340,396	192,715	111,037	53,332	26,505	14,063	5,940	5,730	1,961	242	69	68	9,865,931
All species groups	16,630,132	3,676,005	1,353,137	756,919	423,839	238,811	118,620	58,574	30,703	15,012	12,608	4,176	691	359	68	23,319,654

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the number of trees rounds to less than 1 thousand trees. Columns and rows may not add to their totals due to rounding.

Table ME-11.—Number of growing-stock trees (at least 5 inches d.b.h.), in thousand trees, on timberland by species group and diameter class, Maine, 2008

Species group	Diameter class (inches)													All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+	
Softwood species groups														
Eastern softwood species groups														
Other yellow pines	110	213	435	219	85	85	--	--	--	--	--	--	--	1,147
Eastern white and red pines	53,028	33,948	22,318	16,416	11,105	8,047	6,088	3,935	3,821	1,511	339	216	--	160,772
Jack pine	231	199	--	40	--	--	--	--	--	--	--	--	--	470
Spruce and balsam fir	515,854	232,781	103,192	48,863	20,498	7,696	2,359	949	427	--	--	--	--	932,619
Eastern hemlock	49,399	40,361	27,340	19,114	11,782	5,916	3,854	1,645	1,137	140	41	37	--	160,768
Other eastern softwoods	93,934	77,446	52,285	29,876	15,308	6,431	2,556	1,248	603	104	--	--	--	279,790
All softwoods	712,556	384,948	205,570	114,527	58,778	28,175	14,857	7,777	5,988	1,754	381	253	--	1,535,566
Hardwood species groups														
Eastern hardwood species groups														
Select white oaks	1,647	509	535	265	121	85	--	--	--	--	--	--	--	3,162
Select red oaks	22,131	15,720	11,360	8,852	4,033	2,182	1,487	597	580	204	--	--	--	67,147
Other red oaks	377	419	287	164	338	87	53	--	--	--	--	--	--	1,724
Hickory	65	33	--	--	--	--	--	--	--	--	--	--	--	98
Yellow birch	47,215	25,023	17,168	11,547	6,612	4,253	2,453	1,027	1,202	274	--	--	35	116,810
Hard maple	44,229	34,694	23,884	15,367	9,349	5,164	2,879	1,913	1,682	670	68	34	--	139,933
Soft maple	153,592	97,774	52,736	27,806	11,460	5,148	2,383	605	532	137	34	--	--	352,206
Beech	49,476	28,651	13,682	6,848	3,026	1,269	202	145	--	--	--	--	--	103,300
Ash	29,138	15,090	8,428	4,470	2,003	876	493	35	137	33	--	--	--	60,702
Cottonwood and aspen	44,618	26,249	19,015	11,015	5,583	2,871	1,246	635	427	131	--	--	--	111,790
Basswood	1,038	702	487	76	109	36	--	--	33	--	--	--	--	2,481
Other eastern soft hardwoods	93,242	47,895	22,863	8,925	3,437	1,182	333	72	68	--	--	--	--	178,017
Other eastern hard hardwoods	898	397	289	216	--	54	--	--	--	--	--	--	--	1,854
All hardwoods	487,666	293,154	170,735	95,551	46,071	23,210	11,529	5,029	4,661	1,448	102	34	35	1,139,224
All species groups	1,200,222	678,102	376,305	210,078	104,849	51,385	26,387	12,806	10,648	3,202	482	287	35	2,674,789

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the number of trees rounds to less than 1 thousand trees. Columns and rows may not add to their totals due to rounding.

Table ME-12.—Net volume, in million cubic feet, of all live trees by owner class and forest-land status, Maine, 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	126.8	--	126.8	3.5	3.7	7.2	134.0
Other Federal							
National Park Service	--	--	--	69.5	--	69.5	69.5
Fish and Wildlife Service	73.8	--	73.8	26.8	--	26.8	100.6
Department of Defense or Energy	31.6	--	31.6	--	--	--	31.6
Other Federal	1.3	--	1.3	--	--	--	1.3
State and local government							
State	1,231.9	0.3	1,232.3	529.6	1.5	531.1	1,763.4
Local (county, municipal, etc.)	265.5	--	265.5	5.1	--	5.1	270.6
Private							
Undifferentiated private	23,058.8	44.5	23,103.3	--	--	--	23,103.3
All owners	24,789.6	44.9	24,834.5	634.6	5.2	639.8	25,474.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-13.—Net volume, in million cubic feet, of live trees on forest land by forest-type group and stand-size class, Maine, 2008

Forest type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked	
White / red / jack pine group	2,286.3	424.4	22.1	- -	- -	2,732.7
Spruce / fir group	3,903.5	2,520.7	1,085.3	- -	- -	7,509.5
Loblolly / shortleaf pine group	- -	4.0	- -	- -	- -	4.0
Exotic softwoods group	- -	20.9	2.7	- -	- -	23.6
Oak / pine group	609.3	215.9	17.7	- -	- -	843.0
Oak / hickory group	364.5	278.4	3.4	- -	- -	646.3
Elm / ash / cottonwood group	77.9	295.2	34.5	- -	- -	407.6
Maple / beech / birch group	5,716.2	4,558.7	624.6	- -	- -	10,899.5
Aspen / birch group	579.6	1,398.2	395.2	- -	- -	2,372.9
Other hardwoods group	- -	5.6	25.4	- -	- -	31.0
Nonstocked	- -	- -	- -	- -	4.1	4.1
All forest type groups	13,537.3	9,722.0	2,210.9	- -	4.1	25,474.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-14.—Net volume, in million cubic feet, of live trees (at least 5 inches d.b.h./d.r.c.), on forest land by species group and ownership group, Maine, 2008

Species group	Ownership group				
	Forest Service	Other Federal	State and local government	Undifferentiated private	All owners
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	--	2.3	2.6	13.9	18.7
Eastern white and red pines	0.8	27.6	230.7	2,608.5	2,867.5
Jack pine	--	--	--	2.7	2.7
Spruce and balsam fir	16.1	66.6	622.8	5,695.2	6,400.7
Eastern hemlock	21.1	17.3	49.0	1,805.7	1,893.2
Other eastern softwoods	--	14.6	207.6	2,147.0	2,369.3
All softwoods	37.9	128.4	1,112.7	12,273.0	13,552.0
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	--	--	2.2	23.4	25.7
Select red oaks	3.4	9.6	42.0	781.8	836.8
Other red oaks	--	--	2.3	22.1	24.4
Hickory	--	--	--	0.4	0.4
Yellow birch	19.2	15.1	161.5	1,423.4	1,619.1
Hard maple	6.6	8.5	159.6	1,911.8	2,086.4
Soft maple	33.7	10.9	233.4	2,897.7	3,175.9
Beech	28.7	0.4	59.3	833.9	922.3
Ash	2.2	0.3	40.2	507.4	550.1
Cottonwood and aspen	--	22.7	80.6	1,173.5	1,276.8
Basswood	--	1.7	--	26.2	27.9
Yellow-poplar	--	--	--	0.1	0.1
Other eastern soft hardwoods	2.3	4.9	137.3	1,147.2	1,291.6
Other eastern hard hardwoods	--	--	--	15.0	15.0
Eastern noncommercial hardwoods	--	0.5	2.9	66.6	70.0
All hardwoods	96.0	74.6	921.3	10,830.3	11,922.3
All species groups	134.0	203.0	2,034.1	23,103.3	25,474.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-15.—Net volume, in million cubic feet, of live trees (at least 5 inches d.b.h./d.r.c.), on forest land by species group and diameter class, Maine, 2008

Species group	Diameter class (inches)													All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+	
Softwood species groups														
Eastern softwood species groups														
Other yellow pines	1	2	5	4	2	5	--	--	--	--	--	--	--	19
Eastern white and red pines	158	236	300	331	317	326	319	254	319	205	55	47	--	2,867
Jack pine	1	1	--	1	--	--	--	--	--	--	--	--	--	3
Spruce and balsam fir	1,410	1,584	1,298	977	596	303	130	64	38	--	--	--	--	6,401
Eastern hemlock	128	234	309	337	293	208	168	99	90	15	5	6	--	1,893
Other eastern softwoods	233	423	518	452	323	195	103	64	45	11	2	--	--	2,369
All softwoods	1,930	2,480	2,429	2,102	1,530	1,038	721	481	492	232	62	54	--	13,552
Hardwood species groups														
Eastern hardwood species groups														
Select white oaks	4	3	6	5	5	3	--	--	--	--	--	--	--	26
Select red oaks	58	100	133	167	109	79	76	36	47	23	8	--	--	837
Other red oaks	1	3	3	3	9	3	2	--	--	--	--	--	--	24
Hickory	0	0	--	--	--	--	--	--	--	--	--	--	--	0
Yellow birch	142	188	239	275	216	184	139	71	108	46	--	3	9	1,619
Hard maple	132	256	316	324	288	213	157	127	158	86	16	7	7	2,086
Soft maple	403	665	673	597	348	216	139	56	53	22	5	--	--	3,176
Beech	141	228	202	164	103	56	13	13	3	--	--	--	--	922
Ash	88	113	112	95	61	36	27	2	11	5	--	--	--	550
Cottonwood and aspen	133	192	251	238	171	120	76	45	35	16	--	--	--	1,277
Basswood	3	5	8	3	3	2	--	--	4	--	--	--	--	28
Yellow-poplar	0	--	--	--	--	--	--	--	--	--	--	--	--	0
Other eastern soft hardwoods	273	343	294	188	110	48	19	4	12	--	--	--	--	1,292
Other eastern hard hardwoods	3	3	4	4	--	2	--	--	--	--	--	--	--	15
Eastern noncommercial hardwoods	33	20	10	3	2	2	--	--	--	--	--	--	--	70
All hardwoods	1,416	2,120	2,252	2,063	1,424	964	648	352	430	197	30	9	16	11,922
All species groups	3,346	4,600	4,681	4,166	2,954	2,002	1,369	834	923	429	92	63	16	25,474

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-16.—Net volume, in million cubic feet, of live trees on accessible forest land by forest-type group and stand origin, Maine, 2008

Forest type group	Stand origin		All forest land
	Natural stands	Artificial regeneration	
White / red / jack pine group	2,566.5	166.2	2,732.7
Spruce / fir group	7,464.5	45.0	7,509.5
Loblolly / shortleaf pine group	4.0	- -	4.0
Exotic softwoods group	- -	23.6	23.6
Oak / pine group	836.3	6.7	843.0
Oak / hickory group	646.3	- -	646.3
Elm / ash / cottonwood group	407.6	- -	407.6
Maple / beech / birch group	10,897.3	2.2	10,899.5
Aspen / birch group	2,370.8	2.1	2,372.9
Other hardwoods group	31.0	- -	31.0
Nonstocked	3.8	0.3	4.1
All forest type groups	25,228.3	246.1	25,474.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-17.—Net volume, in million cubic feet, of growing-stock trees (at least 5 inches d.b.h.), on timberland by species group and diameter class, Maine, 2008

Species group	Diameter class (inches)													All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+	
Softwood species groups														
Eastern softwood species groups														
Other yellow pines	0	1	5	4	2	3	--	--	--	--	--	--	--	15
Eastern white and red pines	145	217	265	303	292	292	290	230	295	171	52	43	--	2,594
Jack pine	1	1	--	1	--	--	--	--	--	--	--	--	--	2
Spruce and balsam fir	1,341	1,512	1,221	916	552	283	115	60	32	--	--	--	--	6,031
Eastern hemlock	122	227	282	309	276	193	163	89	80	15	5	6	--	1,766
Other eastern softwoods	211	387	461	409	294	168	89	53	35	8	--	--	--	2,117
All softwoods	1,821	2,345	2,233	1,942	1,415	940	657	432	442	195	57	49	--	12,526
Hardwood species groups														
Eastern hardwood species groups														
Select white oaks	4	3	6	4	3	3	--	--	--	--	--	--	--	23
Select red oaks	57	99	130	161	107	78	70	36	44	23	--	--	--	804
Other red oaks	1	2	3	3	9	3	2	--	--	--	--	--	--	24
Hickory	0	0	--	--	--	--	--	--	--	--	--	--	--	0
Yellow birch	121	161	201	217	178	156	115	58	94	30	--	--	9	1,340
Hard maple	122	238	295	300	263	199	142	123	133	75	11	7	--	1,907
Soft maple	364	605	614	525	308	191	114	35	41	16	5	--	--	2,819
Beech	115	188	171	139	87	50	11	9	--	--	--	--	--	768
Ash	82	104	108	91	58	34	25	2	11	5	--	--	--	519
Cottonwood and aspen	130	187	247	226	165	115	66	42	35	16	--	--	--	1,229
Basswood	3	5	7	2	3	2	--	--	4	--	--	--	--	25
Other eastern soft hardwoods	245	309	272	163	93	43	15	4	5	--	--	--	--	1,147
Other eastern hard hardwoods	2	2	3	4	--	2	--	--	--	--	--	--	--	14
All hardwoods	1,246	1,902	2,057	1,834	1,274	875	560	309	367	165	16	7	9	10,622
All species groups	3,067	4,247	4,290	3,776	2,689	1,815	1,217	741	809	360	73	56	9	23,148

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-18.—Net volume, in million cubic feet, of growing-stock trees (at least 5 inches d.b.h.), on timberland by species group and ownership group, Maine, 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	--	--	2.4	12.5	14.9
Eastern white and red pines	--	3.6	163.7	2,426.8	2,594.1
Jack pine	--	--	--	2.5	2.5
Spruce and balsam fir	10.8	21.6	423.0	5,575.8	6,031.3
Eastern hemlock	20.6	17.2	44.9	1,683.7	1,766.4
Other eastern softwoods	--	9.0	159.2	1,948.9	2,117.1
All softwoods	31.4	51.5	793.2	11,650.2	12,526.3
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	--	--	2.2	20.9	23.1
Select red oaks	3.4	4.7	42.0	754.3	804.4
Other red oaks	--	--	1.9	22.0	23.9
Hickory	--	--	--	0.4	0.4
Yellow birch	18.9	5.6	108.7	1,206.9	1,340.1
Hard maple	6.6	6.3	100.1	1,794.2	1,907.2
Soft maple	27.0	6.5	165.4	2,620.1	2,818.9
Beech	24.2	--	36.1	708.1	768.4
Ash	1.6	0.3	36.5	481.0	519.5
Cottonwood and aspen	--	21.7	50.1	1,157.5	1,229.3
Basswood	--	1.6	--	23.8	25.4
Other eastern soft hardwoods	1.9	1.8	76.2	1,067.3	1,147.2
Other eastern hard hardwoods	--	--	--	14.3	14.3
All hardwoods	83.6	48.5	619.2	9,870.7	10,621.9
All species groups	115.0	100.0	1,412.3	21,520.9	23,148.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-19.—Net volume, in million board feet, of sawtimber trees (International 1/4-inch rule) on timberland by species group and diameter class, Maine, 2008

Species group	Diameter class (inches)											All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+	
Softwood species groups												
Eastern softwood species groups												
Other yellow pines	15	14	7	14	--	--	--	--	--	--	--	51
Eastern white and red pines	871	1,230	1,315	1,400	1,435	1,193	1,532	930	289	244	--	10,440
Jack pine	--	2	--	--	--	--	--	--	--	--	--	2
Spruce and balsam fir	4,064	3,806	2,542	1,385	579	305	180	--	--	--	--	12,860
Eastern hemlock	851	1,100	1,055	776	676	367	346	71	24	31	--	5,298
Other eastern softwoods	1,141	1,334	1,066	651	366	225	158	38	--	--	--	4,979
All softwoods	6,943	7,486	5,985	4,226	3,056	2,090	2,216	1,039	313	275	--	33,630
Hardwood species groups												
Eastern hardwood species groups												
Select white oaks	--	15	15	13	--	--	--	--	--	--	--	43
Select red oaks	--	543	439	350	334	179	231	131	--	--	--	2,206
Other red oaks	--	8	37	15	12	--	--	--	--	--	--	72
Yellow birch	--	790	760	713	567	303	495	166	--	--	57	3,852
Hard maple	--	1,067	1,089	912	692	620	738	444	68	43	--	5,674
Soft maple	--	1,695	1,213	836	543	175	213	94	31	--	--	4,800
Beech	--	494	373	234	57	47	--	--	--	--	--	1,204
Ash	--	310	240	157	123	11	60	27	--	--	--	929
Cottonwood and aspen	--	776	688	538	326	219	194	94	--	--	--	2,836
Basswood	--	6	14	8	--	--	20	--	--	--	--	48
Other eastern soft hardwoods	--	575	394	193	74	22	24	--	--	--	--	1,281
Other eastern hard hardwoods	--	13	--	10	--	--	--	--	--	--	--	23
All hardwoods	--	6,291	5,262	3,981	2,728	1,577	1,976	956	99	43	57	22,969
All species groups	6,943	13,778	11,248	8,206	5,784	3,667	4,192	1,995	412	318	57	56,599

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million board feet. Columns and rows may not add to their totals due to rounding.

Table ME-19a.—Net volume, in million board feet, of sawtimber trees (Doyle rule) on timberland by species group and diameter class, Maine, 2008

Species group	Diameter class (inches)											All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+	
Softwood species groups												
Eastern softwood species groups												
Other yellow pines	5	7	4	10	--	--	--	--	--	--	--	26
Eastern white and red pines	301	588	788	967	1,103	1,023	1,357	892	320	270	--	7,609
Jack pine	--	1	--	--	--	--	--	--	--	--	--	1
Spruce and balsam fir	1,404	1,819	1,523	957	445	261	157	--	--	--	--	6,567
Eastern hemlock	294	526	632	536	520	315	309	68	27	34	--	3,262
Other eastern softwoods	394	638	639	450	281	193	140	36	--	--	--	2,770
All softwoods	2,399	3,578	3,586	2,919	2,349	1,792	1,964	997	347	304	--	20,235
Hardwood species groups												
Eastern hardwood species groups												
Select white oaks	--	6	8	8	--	--	--	--	--	--	--	22
Select red oaks	--	226	224	206	219	128	184	120	--	--	--	1,309
Other red oaks	--	3	19	9	8	--	--	--	--	--	--	39
Yellow birch	--	330	389	420	373	217	395	147	--	--	65	2,335
Hard maple	--	445	558	537	455	445	591	398	77	49	--	3,553
Soft maple	--	707	621	492	357	126	171	86	35	--	--	2,595
Beech	--	206	191	138	37	34	--	--	--	--	--	605
Ash	--	129	123	92	81	8	47	26	--	--	--	506
Cottonwood and aspen	--	324	352	317	214	158	154	82	--	--	--	1,600
Basswood	--	2	7	5	--	--	17	--	--	--	--	31
Other eastern soft hardwoods	--	240	201	114	49	16	19	--	--	--	--	638
Other eastern hard hardwoods	--	5	--	6	--	--	--	--	--	--	--	11
All hardwoods	--	2,625	2,693	2,341	1,792	1,132	1,578	858	112	49	65	13,244
All species groups	2,399	6,203	6,280	5,261	4,140	2,924	3,542	1,855	459	353	65	33,480

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million board feet. Columns and rows may not add to their totals due to rounding.

Table ME-20.—Net volume, in million cubic feet, of sawtimber trees on timberland by species group and ownership group, Maine, 2008

Species group	Ownership group				
	Forest Service	Other Federal	State and local government	Undifferentiated private	All owners
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	- -	- -	2.2	9.3	11.5
Eastern white and red pines	- -	2.3	137.0	1,879.2	2,018.5
Jack pine	- -	- -	- -	0.5	0.5
Spruce and balsam fir	6.4	11.7	229.9	2,518.1	2,766.2
Eastern hemlock	16.8	13.9	36.2	1,193.2	1,260.1
Other eastern softwoods	- -	3.2	100.8	1,228.9	1,332.9
All softwoods	23.2	31.0	506.2	6,829.2	7,389.7
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	- -	- -	- -	8.4	8.4
Select red oaks	2.9	1.4	15.0	397.8	417.1
Other red oaks	- -	- -	1.1	13.0	14.1
Yellow birch	12.4	2.9	64.5	615.5	695.3
Hard maple	3.1	2.0	54.5	958.4	1,018.0
Soft maple	15.3	- -	63.1	897.6	976.1
Beech	8.8	- -	10.6	212.0	231.4
Ash	0.5	- -	13.6	164.4	178.4
Cottonwood and aspen	- -	11.2	25.7	495.2	532.1
Basswood	- -	0.6	- -	7.8	8.5
Other eastern soft hardwoods	1.1	0.5	15.9	233.7	251.2
Other eastern hard hardwoods	- -	- -	- -	4.5	4.5
All hardwoods	44.0	18.8	263.9	4,008.5	4,335.2
All species groups	67.3	49.8	770.1	10,837.7	11,724.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-21.—Average annual net growth of all live trees, in million cubic feet, by owner class and forest-land status, Maine, 2003 to 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	0.3	--	0.3	0.2	0.1	0.2	0.6
Other Federal							
National Park Service	--	--	--	-0.1	--	-0.1	-0.1
Fish and Wildlife Service	0.7	--	0.7	0.2	--	0.2	0.8
Department of Defense or Energy	0.0	--	0.0	--	--	--	0.0
Other Federal	0.2	--	0.2	--	--	--	0.2
State and local government							
State	16.7	0.1	16.8	6.0	0.1	6.0	22.8
Local (county, municipal, etc.)	4.3	--	4.3	--	--	--	4.3
Private							
Undifferentiated private	556.4	0.6	557.0	--	--	--	557.0
All owners	578.6	0.7	579.3	6.3	0.1	6.4	585.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-22.—Average annual net growth of live trees, in million cubic feet, on forest land by forest-type group and stand-size class, Maine, 2003 to 2008

Forest type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Non stocked	
White / red / jack pine group	41.5	17.4	5.8	- -	- -	64.7
Spruce / fir group	49.5	62.7	62.9	- -	- -	175.0
Exotic softwoods group	- -	0.6	1.2	- -	- -	1.8
Oak / pine group	18.5	8.6	1.0	- -	- -	28.1
Oak / hickory group	9.5	11.1	0.5	- -	- -	21.0
Elm / ash / cottonwood group	1.7	6.4	2.5	- -	- -	10.5
Maple / beech / birch group	61.0	120.6	34.7	- -	- -	216.3
Aspen / birch group	2.5	33.5	28.3	- -	- -	64.2
Other hardwoods group	- -	0.2	1.7	- -	- -	1.9
Nonstocked	- -	- -	- -	- -	2.2	2.2
All forest type groups	184.2	261.0	138.4	- -	2.2	585.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-23.—Average annual net growth of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by species group and ownership group, Maine, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	- -	- -	0.1	-0.2	-0.1
Eastern white and red pines	0.0	0.1	5.0	92.9	98.1
Jack pine	- -	- -	0.0	0.1	0.1
Spruce and balsam fir	0.5	0.8	8.3	139.6	149.1
Eastern hemlock	0.6	0.1	1.2	57.7	59.6
Other eastern softwoods	- -	0.2	2.2	28.9	31.3
All softwoods	1.1	1.2	16.9	319.0	338.2
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	- -	- -	0.0	0.5	0.6
Select red oaks	0.1	0.2	1.1	36.2	37.6
Other red oaks	- -	- -	0.0	0.9	0.9
Hickory	- -	- -	- -	0.0	0.0
Yellow birch	-0.6	-0.2	1.4	27.4	28.0
Hard maple	-0.1	0.0	1.9	41.2	43.1
Soft maple	0.3	0.2	4.8	76.1	81.5
Beech	-0.1	- -	-0.4	1.4	0.9
Ash	0.1	0.0	0.8	15.8	16.6
Cottonwood and aspen	- -	-0.5	-0.1	32.8	32.2
Basswood	- -	0.0	- -	0.3	0.3
Yellow-poplar	- -	- -	- -	0.0	0.0
Other eastern soft hardwoods	-0.2	0.0	0.7	4.7	5.2
Other eastern hard hardwoods	- -	- -	- -	0.3	0.3
Eastern noncommercial hardwoods	0.0	0.0	-0.1	0.4	0.3
All hardwoods	-0.6	-0.2	10.2	238.1	247.5
All species groups	0.6	1.0	27.1	557.0	585.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-24.—Average annual net growth of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, on timberland by species group and ownership group, Maine, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	- -	- -	0.0	0.0	0.0
Eastern white and red pines	0.0	0.0	4.1	82.3	86.4
Jack pine	- -	- -	0.0	0.1	0.1
Spruce and balsam fir	0.3	0.3	13.4	141.3	155.2
Eastern hemlock	0.6	0.1	1.1	52.4	54.2
Other eastern softwoods	- -	0.2	3.2	30.5	33.9
All softwoods	0.9	0.6	21.9	306.6	329.9
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	- -	- -	0.0	0.4	0.4
Select red oaks	0.1	0.2	1.0	30.7	32.0
Other red oaks	- -	- -	0.0	0.8	0.8
Hickory	- -	- -	- -	0.0	0.0
Yellow birch	-0.3	0.0	3.0	22.8	25.6
Hard maple	0.0	0.0	3.1	36.3	39.4
Soft maple	0.4	0.1	6.2	68.3	75.1
Beech	-0.1	- -	0.6	8.1	8.6
Ash	0.1	0.0	0.7	16.0	16.8
Cottonwood and aspen	- -	0.0	1.4	33.1	34.5
Basswood	- -	0.0	- -	0.4	0.5
Other eastern soft hardwoods	-0.2	0.0	2.2	7.1	9.2
Other eastern hard hardwoods	- -	- -	- -	0.4	0.4
All hardwoods	0.0	0.4	18.3	224.5	243.3
All species groups	0.9	1.0	40.2	531.1	573.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-25.—Average annual mortality of live trees, in million cubic feet, by owner class and forest-land status, Maine, 2003 to 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	2.7	- -	2.7	- -	0.0	0.0	2.7
Other Federal							
National Park Service	- -	- -	- -	0.8	- -	0.8	0.8
Fish and Wildlife Service	1.0	- -	1.0	0.2	- -	0.2	1.2
Other Federal	0.1	- -	0.1	- -	- -	- -	0.1
State and local government							
State	10.6	- -	10.6	7.6	0.0	7.6	18.3
Local (county, municipal, etc.)	4.7	- -	4.7	- -	- -	- -	4.7
Private							
Undifferentiated private	322.7	0.7	323.4	- -	- -	- -	323.4
All owners	341.8	0.7	342.5	8.6	0.1	8.7	351.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-26.—Average annual mortality of live trees, in million cubic feet, on forest land by forest-type group and stand-size class, Maine, 2003 to 2008

Forest type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Non stocked	
White / red / jack pine group	18.1	3.3	- -	- -	- -	21.5
Spruce / fir group	55.0	36.7	12.3	- -	- -	104.0
Oak / pine group	4.2	4.1	- -	- -	- -	8.4
Oak / hickory group	1.3	2.2	0.1	- -	- -	3.6
Elm / ash / cottonwood group	1.2	4.4	0.8	- -	- -	6.4
Maple / beech / birch group	81.3	70.0	8.1	- -	- -	159.4
Aspen / birch group	12.9	28.0	5.9	- -	- -	46.8
Other hardwoods group	- -	0.0	1.0	- -	- -	1.0
Nonstocked	- -	- -	- -	- -	0.1	0.1
All forest type groups	174.1	148.8	28.1	- -	0.1	351.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-27.—Average annual mortality of trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by species group and ownership group, Maine, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	--	--	--	0.4	0.4
Eastern white and red pines	--	0.2	0.6	15.8	16.6
Spruce and balsam fir	0.1	0.4	10.5	131.9	142.8
Eastern hemlock	0.1	0.1	--	4.1	4.3
Other eastern softwoods	--	0.2	1.7	17.1	19.0
All softwoods	0.2	0.9	12.7	169.3	183.1
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	--	--	--	0.1	0.1
Select red oaks	--	--	0.0	0.6	0.6
Other red oaks	--	--	--	0.0	0.0
Yellow birch	0.9	0.0	0.7	13.6	15.2
Hard maple	0.2	--	0.8	15.6	16.6
Soft maple	0.0	0.0	0.6	23.6	24.3
Beech	1.2	--	2.5	36.4	40.0
Ash	--	--	0.5	4.1	4.6
Cottonwood and aspen	--	1.0	2.3	26.7	30.0
Basswood	--	--	--	0.5	0.5
Other eastern soft hardwoods	0.2	0.2	2.6	29.9	32.9
Other eastern hard hardwoods	--	--	--	0.0	0.0
Eastern noncommercial hardwoods	0.0	--	0.2	3.0	3.2
All hardwoods	2.5	1.3	10.2	154.1	168.1
All species groups	2.7	2.1	23.0	323.4	351.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-28.—Average annual mortality of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, on timberland by species group and ownership group, Maine, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	- -	- -	- -	0.2	0.2
Eastern white and red pines	- -	- -	0.5	11.8	12.2
Spruce and balsam fir	0.0	0.2	5.9	122.6	128.7
Eastern hemlock	0.0	0.1	- -	2.3	2.4
Other eastern softwoods	- -	- -	1.2	13.0	14.3
All softwoods	0.1	0.2	7.7	149.9	157.8
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	- -	- -	- -	0.0	0.0
Select red oaks	- -	- -	0.0	0.4	0.5
Other red oaks	- -	- -	- -	0.0	0.0
Yellow birch	0.5	- -	0.1	8.9	9.5
Hard maple	0.1	- -	- -	11.4	11.5
Soft maple	- -	- -	0.3	15.1	15.3
Beech	0.6	- -	0.8	23.1	24.5
Ash	- -	- -	0.4	2.2	2.6
Cottonwood and aspen	- -	0.5	0.9	21.3	22.7
Basswood	- -	- -	- -	0.3	0.3
Other eastern soft hardwoods	0.2	- -	1.5	22.7	24.4
All hardwoods	1.4	0.5	4.1	105.4	111.4
All species groups	1.5	0.7	11.7	255.3	269.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-29.—Average annual removals of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, on forest land by species group and ownership group, Maine, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	--	--	--	0.6	0.6
Eastern white and red pines	--	--	3.7	50.0	53.7
Spruce and balsam fir	--	0.0	7.2	180.6	187.8
Eastern hemlock	--	--	1.1	38.5	39.6
Other eastern softwoods	--	--	0.1	27.2	27.3
All softwoods	--	0.0	12.1	297.0	309.1
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	--	--	--	0.5	0.5
Select red oaks	--	--	0.9	5.2	6.1
Other red oaks	--	--	--	0.4	0.4
Yellow birch	--	--	0.6	31.6	32.2
Hard maple	--	--	1.6	69.5	71.0
Soft maple	--	0.1	1.8	65.8	67.6
Beech	--	--	2.9	37.7	40.6
Ash	--	--	0.2	9.5	9.7
Cottonwood and aspen	--	--	4.8	49.0	53.8
Basswood	--	--	--	1.3	1.3
Other eastern soft hardwoods	--	0.0	1.4	18.6	20.0
Other eastern hard hardwoods	--	--	--	0.1	0.1
Eastern noncommercial hardwoods	--	--	0.0	1.3	1.3
All hardwoods	--	0.1	14.2	290.4	304.7
All species groups	--	0.1	26.3	587.4	613.8

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-30.—Average annual removals of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, on timberland by species group and ownership group, Maine, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Other yellow pines	- -	- -	- -	0.6	0.6
Eastern white and red pines	- -	- -	4.1	44.4	48.5
Spruce and balsam fir	- -	0.0	9.5	178.5	188.0
Eastern hemlock	- -	- -	1.1	33.1	34.2
Other eastern softwoods	- -	- -	0.3	25.4	25.8
All softwoods	- -	0.0	14.9	282.0	297.0
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	- -	- -	- -	0.3	0.3
Select red oaks	- -	- -	0.9	4.5	5.3
Other red oaks	- -	- -	- -	0.3	0.3
Yellow birch	- -	- -	2.1	26.8	28.9
Hard maple	- -	- -	1.7	59.3	61.0
Soft maple	- -	0.1	4.9	54.4	59.3
Beech	- -	- -	3.2	28.1	31.3
Ash	- -	- -	0.2	8.2	8.4
Cottonwood and aspen	- -	- -	6.9	43.7	50.6
Basswood	- -	- -	- -	0.9	0.9
Other eastern soft hardwoods	- -	0.0	2.7	16.1	18.8
Other eastern hard hardwoods	- -	- -	- -	0.1	0.1
All hardwoods	- -	0.1	22.5	242.6	265.2
All species groups	- -	0.1	37.4	524.7	562.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table ME-31. – Aboveground dry weight (CRM) of all live trees, in thousand dry tons, by owner class and forest-land status, Maine, 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	3,458	- -	3,458	102	75	177	3,635
Other Federal							
National Park Service	- -	- -	- -	1,580	- -	1,580	1,580
Fish and Wildlife Service	1,680	- -	1,680	473	- -	473	2,153
Department of Defense or Energy	873	- -	873	- -	- -	- -	873
Other Federal	62	- -	62	- -	48	48	110
State and local government							
State	29,895	15	29,910	12,747	152	12,898	42,808
Local (county, municipal, etc.)	6,823	- -	6,823	112	- -	112	6,935
Private							
Undifferentiated private	604,610	1,496	606,106	- -	- -	- -	606,106
All owners	647,400	1,511	648,912	15,014	275	15,289	664,201

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the aboveground tree biomass rounds to less than 1 thousand dry tons. Columns and rows may not add to their totals due to rounding.

Table ME-32. – Aboveground dry weight (CRM) of all live trees, in thousand dry tons, on forest land by species group and diameter class, Maine, 2008

Species group	Diameter class (inches)															All classes
	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
Softwood species groups																
Eastern softwood species groups																
Other yellow pines	--	--	12	33	98	88	54	117	--	--	--	--	--	--	--	400
Eastern white and red pines	584	1,543	2,732	4,059	5,146	5,660	5,421	5,577	5,448	4,452	3,607	1,976	2,055	1,662	1,813	51,736
Jack pine	--	--	15	25	--	11	--	--	--	--	--	--	--	--	--	50
Spruce and balsam fir	17,781	24,439	22,649	25,085	20,463	15,384	9,487	4,846	2,071	1,016	500	168	--	--	--	143,888
Eastern hemlock	714	1,721	2,381	4,295	5,663	6,189	5,326	3,812	3,066	1,860	1,045	672	63	224	215	37,246
Other eastern softwoods	1,085	2,361	3,522	6,226	7,525	6,511	4,706	2,881	1,504	880	395	276	140	24	30	38,067
All softwoods	20,163	30,064	31,310	39,721	38,894	33,843	24,994	17,233	12,091	8,208	5,546	3,092	2,258	1,910	2,058	271,388
Hardwood species groups																
Eastern hardwood species groups																
Select white oaks	7	75	141	103	198	161	148	91	--	--	--	--	--	--	--	923
Select red oaks	382	912	2,005	3,263	4,259	5,275	3,421	2,472	2,416	1,116	1,124	385	345	379	324	28,078
Other red oaks	1	20	33	82	107	80	270	99	75	--	--	--	--	--	--	767
Hickory	2	--	7	6	--	--	--	--	--	--	--	--	--	--	--	15
Yellow birch	2,684	4,382	4,372	5,507	6,870	7,881	6,196	5,206	4,124	2,112	2,200	876	1,136	224	326	54,093
Hard maple	1,755	3,531	4,229	7,865	9,479	9,645	8,579	6,293	4,649	3,692	2,927	1,938	1,641	1,006	1,007	68,236
Soft maple	7,328	12,112	10,994	17,401	17,233	15,015	8,777	5,463	3,541	1,512	716	677	163	430	129	101,492
Beech	2,356	3,682	4,323	6,636	5,779	4,655	2,980	1,633	363	387	97	--	--	--	--	32,888
Ash	1,055	1,821	2,633	3,256	3,142	2,656	1,732	1,002	762	63	311	--	--	127	--	18,559
Cottonwood and aspen	1,549	2,369	2,822	3,870	4,868	4,581	3,285	2,301	1,496	879	552	133	312	--	--	29,018
Basswood	11	15	61	97	129	47	56	28	--	--	--	61	--	--	--	505
Yellow-poplar	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	3
Other eastern soft hardwoods	5,624	8,045	7,462	8,945	7,524	4,794	2,809	1,192	508	110	264	83	--	--	--	47,361
Other eastern hard hardwoods	30	34	85	82	119	112	--	65	--	--	--	--	--	--	--	527
Eastern noncommercial hardwoods	4,626	3,241	1,147	734	370	109	60	60	--	--	--	--	--	--	--	10,348
All hardwoods	27,409	40,239	40,316	57,846	60,076	55,012	38,313	25,906	17,932	9,872	8,191	4,153	3,597	2,165	1,786	392,813
All species groups	47,573	70,303	71,626	97,567	98,971	88,855	63,307	43,140	30,022	18,080	13,737	7,245	5,855	4,076	3,844	664,201

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the aboveground tree biomass rounds to less than 1 thousand dry tons. Columns and rows may not add to their totals due to rounding.

Table ME-54.—Area of accessible forest land, in thousand acres, by Forest Survey Unit, county, and forest-land status, Maine, 2008

Forest Survey Unit and county	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Washington							
Washington	1,487.6	37.0	1,524.7	12.7	- -	12.7	1,537.3
Total	1,487.6	37.0	1,524.7	12.7	- -	12.7	1,537.3
Aroostook							
Aroostook	3,801.3	42.2	3,843.5	14.9	- -	14.9	3,858.4
Total	3,801.3	42.2	3,843.5	14.9	- -	14.9	3,858.4
Penobscot							
Penobscot	1,945.8	41.2	1,987.0	10.7	- -	10.7	1,997.8
Total	1,945.8	41.2	1,987.0	10.7	- -	10.7	1,997.8
Hancock							
Hancock	837.4	33.8	871.2	26.5	- -	26.5	897.7
Total	837.4	33.8	871.2	26.5	- -	26.5	897.7
Piscataquis							
Piscataquis	2,237.4	25.0	2,262.3	168.7	10.3	179.0	2,441.3
Total	2,237.4	25.0	2,262.3	168.7	10.3	179.0	2,441.3
Capitol Region							
Kennebec	387.9	- -	387.9	- -	- -	- -	387.9
Knox	169.5	- -	169.5	- -	- -	- -	169.5
Lincoln	215.6	- -	215.6	- -	- -	- -	215.6
Waldo	383.0	- -	383.0	- -	- -	- -	383.0
Total	1,156.0	- -	1,156.0	- -	- -	- -	1,156.0
Somerset							
Somerset	2,339.1	15.0	2,354.1	18.0	- -	18.0	2,372.1
Total	2,339.1	15.0	2,354.1	18.0	- -	18.0	2,372.1
Casco Bay							
Androscoggin	205.6	1.2	206.8	- -	- -	- -	206.8
Cumberland	365.0	- -	365.0	- -	- -	- -	365.0
Sagadahoc	109.0	- -	109.0	- -	- -	- -	109.0
York	468.4	- -	468.4	- -	- -	- -	468.4
Total	1,148.0	1.2	1,149.2	- -	- -	- -	1,149.2
Western Maine							
Franklin	978.6	6.5	985.1	28.3	3.3	31.6	1,016.7
Oxford	1,217.5	- -	1,217.5	8.2	5.3	13.4	1,230.9
Total	2,196.1	6.5	2,202.6	36.5	8.5	45.1	2,247.6
All counties	17,148.7	202.0	17,350.6	288.0	18.8	306.9	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-55.—Area of accessible forest land, in thousand acres, by Forest Survey Unit, county, ownership group, and forest-land status, Maine, 2008

Forest Survey Unit and county	Forest Service		Other Federal		State and local government		Undifferentiated private		All forest land
	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	
Washington									
Washington	--	--	30.1	6.3	40.5	6.3	1,417.1	37.0	1,537.3
Total	--	--	30.1	6.3	40.5	6.3	1,417.1	37.0	1,537.3
Aroostook									
Aroostook	--	--	9.5	--	172.6	17.5	3,619.3	39.6	3,858.4
Total	--	--	9.5	--	172.6	17.5	3,619.3	39.6	3,858.4
Penobscot									
Penobscot	--	--	6.7	--	57.1	11.8	1,882.1	40.2	1,997.8
Total	--	--	6.7	--	57.1	11.8	1,882.1	40.2	1,997.8
Hancock									
Hancock	--	--	8.4	26.5	30.1	--	798.8	33.8	897.7
Total	--	--	8.4	26.5	30.1	--	798.8	33.8	897.7
Piscataquis									
Piscataquis	--	--	--	4.3	193.2	178.7	2,044.2	21.0	2,441.3
Total	--	--	--	4.3	193.2	178.7	2,044.2	21.0	2,441.3
Capitol Region									
Kennebec	--	--	6.7	--	6.7	--	374.5	--	387.9
Knox	--	--	--	--	19.3	--	150.2	--	169.5
Lincoln	--	--	--	--	6.6	--	209.0	--	215.6
Waldo	--	--	--	--	12.2	--	370.8	--	383.0
Total	--	--	6.7	--	44.8	--	1,104.5	--	1,156.0
Somerset									
Somerset	--	--	6.0	2.4	94.4	15.6	2,238.6	15.0	2,372.1
Total	--	--	6.0	2.4	94.4	15.6	2,238.6	15.0	2,372.1
Casco Bay									
Androscoggin	--	--	--	--	7.7	--	197.9	1.2	206.8
Cumberland	--	--	1.8	--	24.1	--	339.2	--	365.0
Sagadahoc	--	--	--	--	--	--	109.0	--	109.0
York	--	--	3.4	--	41.0	--	424.0	--	468.4
Total	--	--	5.1	--	72.8	--	1,070.0	1.2	1,149.2

(Table ME-55 continued on next page)

(Table ME-55 continued)

Forest Survey Unit and county	Forest Service		Other Federal		State and local government		Undifferentiated private		All forest land
	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	
Western Maine									
Franklin	- -	- -	- -	9.8	40.3	21.8	938.3	6.5	1,016.7
Oxford	50.5	7.0	- -	- -	62.8	6.4	1,104.2	- -	1,230.9
Total	50.5	7.0	- -	9.8	103.1	28.2	2,042.5	6.5	2,247.6
All counties	50.5	7.0	72.4	49.4	808.6	258.1	16,217.1	194.3	17,657.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-57.—Area of timberland, in thousand acres, by Forest Survey Unit, county, and stand-size class, Maine, 2008

Forest Survey Unit and county	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked	
Washington						
Washington	288.2	558.3	639.6	--	1.6	1,487.6
Total	288.2	558.3	639.6	--	1.6	1,487.6
Aroostook						
Aroostook	1,073.3	1,280.7	1,444.2	--	3.1	3,801.3
Total	1,073.3	1,280.7	1,444.2	--	3.1	3,801.3
Penobscot						
Penobscot	515.6	738.4	687.7	--	4.1	1,945.8
Total	515.6	738.4	687.7	--	4.1	1,945.8
Hancock						
Hancock	253.6	363.7	220.1	--	--	837.4
Total	253.6	363.7	220.1	--	--	837.4
Piscataquis						
Piscataquis	804.4	620.4	809.5	--	3.1	2,237.4
Total	804.4	620.4	809.5	--	3.1	2,237.4
Capitol Region						
Kennebec	152.5	173.5	57.6	--	4.2	387.9
Knox	55.1	83.8	30.7	--	--	169.5
Lincoln	114.5	89.1	12.0	--	--	215.6
Waldo	110.0	182.5	84.6	--	5.9	383.0
Total	432.0	528.8	185.0	--	10.1	1,156.0
Somerset						
Somerset	670.6	816.5	849.2	--	2.8	2,339.1
Total	670.6	816.5	849.2	--	2.8	2,339.1
Casco Bay						
Androscoggin	74.7	95.9	28.6	--	6.4	205.6
Cumberland	185.1	164.3	15.6	--	--	365.0
Sagadahoc	49.8	54.4	4.8	--	--	109.0
York	248.5	185.3	34.6	--	--	468.4
Total	558.1	499.9	83.6	--	6.4	1,148.0
Western Maine						
Franklin	314.0	409.9	252.9	--	1.7	978.6
Oxford	555.7	471.8	190.0	--	--	1,217.5
Total	869.7	881.7	443.0	--	1.7	2,196.1
All counties	5,465.5	6,288.5	5,361.8	--	32.9	17,148.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-58.—Area of timberland, in thousand acres, by Forest Survey Unit, county, and stocking class, Maine, 2008

Forest Survey Unit and county	Stocking class of growing-stock trees					
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Over-stocked	All classes
Washington						
Washington	18.5	122.2	557.0	680.8	109.1	1,487.6
Total	18.5	122.2	557.0	680.8	109.1	1,487.6
Aroostook						
Aroostook	22.5	420.3	1,251.9	1,570.1	536.5	3,801.3
Total	22.5	420.3	1,251.9	1,570.1	536.5	3,801.3
Penobscot						
Penobscot	19.4	140.8	655.6	877.1	252.9	1,945.8
Total	19.4	140.8	655.6	877.1	252.9	1,945.8
Hancock						
Hancock	9.4	85.1	325.0	354.8	63.0	837.4
Total	9.4	85.1	325.0	354.8	63.0	837.4
Piscataquis						
Piscataquis	19.4	205.7	708.0	970.5	333.8	2,237.4
Total	19.4	205.7	708.0	970.5	333.8	2,237.4
Capitol Region						
Kennebec	4.8	38.1	176.3	154.8	13.8	387.9
Knox	2.8	29.8	52.1	74.4	10.4	169.5
Lincoln	0.7	36.4	69.5	102.9	6.0	215.6
Waldo	5.9	19.6	140.0	185.2	32.3	383.0
Total	14.2	123.9	437.9	517.3	62.6	1,156.0
Somerset						
Somerset	4.0	182.1	794.1	1,079.4	279.4	2,339.1
Total	4.0	182.1	794.1	1,079.4	279.4	2,339.1
Casco Bay						
Androscoggin	6.4	16.5	107.3	60.3	15.1	205.6
Cumberland	5.1	44.7	144.0	158.0	13.1	365.0
Sagadahoc	- -	13.1	44.9	45.4	5.6	109.0
York	5.0	66.3	172.7	204.9	19.6	468.4
Total	16.5	140.6	468.9	468.6	53.4	1,148.0
Western Maine						
Franklin	1.7	82.1	402.4	415.6	76.7	978.6
Oxford	2.1	134.3	437.8	589.5	53.8	1,217.5
Total	3.8	216.4	840.2	1,005.2	130.5	2,196.1
All counties	127.9	1,637.1	6,038.6	7,523.8	1,821.2	17,148.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table ME-59.—Net volume of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, and sawtimber trees (International 1/4-inch rule), in million board feet, on timberland by inventory unit, county, and major species group, Maine, 2008

Inventory unit and county	Growing-stock					Sawtimber				
	Major species group					Major species group				
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species
Washington										
Washington	161.3	955.0	327.5	103.2	1,547.0	577.9	1,881.0	481.0	132.9	3,072.8
Total	161.3	955.0	327.5	103.2	1,547.0	577.9	1,881.0	481.0	132.9	3,072.8
Aroostook										
Aroostook	78.8	2,499.4	861.4	967.4	4,407.0	305.4	5,820.7	1,490.5	2,799.0	10,415.6
Total	78.8	2,499.4	861.4	967.4	4,407.0	305.4	5,820.7	1,490.5	2,799.0	10,415.6
Penobscot										
Penobscot	266.9	1,152.5	559.6	417.4	2,396.4	1,025.8	2,564.5	922.8	924.8	5,437.9
Total	266.9	1,152.5	559.6	417.4	2,396.4	1,025.8	2,564.5	922.8	924.8	5,437.9
Hancock										
Hancock	159.0	562.5	276.2	172.6	1,170.2	574.1	1,407.6	465.1	346.9	2,793.7
Total	159.0	562.5	276.2	172.6	1,170.2	574.1	1,407.6	465.1	346.9	2,793.7
Piscataquis										
Piscataquis	180.9	1,427.4	504.5	751.1	2,863.9	827.6	3,417.1	938.2	2,269.4	7,452.3
Total	180.9	1,427.4	504.5	751.1	2,863.9	827.6	3,417.1	938.2	2,269.4	7,452.3
Capitol Region										
Kennebec	163.2	124.0	181.8	198.2	667.2	667.2	270.2	365.7	446.7	1,749.8
Knox	39.9	110.5	59.7	48.0	258.0	137.2	267.5	67.8	122.9	595.3
Lincoln	158.2	83.1	116.3	76.0	433.6	651.4	225.5	217.6	180.6	1,275.2
Waldo	93.6	183.7	191.9	105.7	574.8	410.9	418.4	305.6	204.1	1,338.9
Total	455.0	501.2	549.6	427.9	1,933.7	1,866.6	1,181.7	956.7	954.3	4,959.2
Somerset										
Somerset	204.0	1,264.7	699.1	763.7	2,931.4	802.8	2,794.3	1,311.9	2,158.7	7,067.7
Total	204.0	1,264.7	699.1	763.7	2,931.4	802.8	2,794.3	1,311.9	2,158.7	7,067.7
Casco Bay										
Androscoggin	112.7	75.8	107.6	84.0	380.2	430.1	234.0	180.9	196.3	1,041.3
Cumberland	264.2	147.9	180.3	216.2	808.7	1,029.0	401.9	250.6	619.5	2,301.0
Sagadahoc	50.6	80.1	47.7	46.7	225.1	206.4	254.0	54.3	92.1	606.8
York	316.2	132.2	253.5	225.4	927.3	1,293.0	392.5	416.4	509.5	2,611.3
Total	743.7	436.1	589.1	572.3	2,341.2	2,958.5	1,282.4	902.2	1,417.3	6,560.4
Western Maine										
Franklin	60.3	523.5	432.0	429.4	1,445.2	278.9	1,192.9	733.4	1,027.1	3,232.2
Oxford	301.6	592.5	484.4	733.8	2,112.1	1,275.4	1,595.3	803.9	1,933.0	5,607.5
Total	361.8	1,116.0	916.4	1,163.1	3,557.3	1,554.3	2,788.2	1,537.3	2,960.0	8,839.8

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

Table ME-59a.—Net volume of growing stock and sawtimber (Doyle rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2008

Forest Survey Unit and county	Growing stock					Sawtimber				
	Major species group					Major species group				
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species
	(In million cubic feet)					(In million board feet)[1]				
Washington										
Washington	161.3	955.0	327.5	103.2	1,547.0	412.8	951.3	275.0	70.6	1,709.7
Total	161.3	955.0	327.5	103.2	1,547.0	412.8	951.3	275.0	70.6	1,709.7
Aroostook										
Aroostook	78.8	2,499.4	861.4	967.4	4,407.0	201.9	3,205.5	823.6	1,755.4	5,986.4
Total	78.8	2,499.4	861.4	967.4	4,407.0	201.9	3,205.5	823.6	1,755.4	5,986.4
Penobscot										
Penobscot	266.9	1,152.5	559.6	417.4	2,396.4	779.2	1,359.3	493.7	538.8	3,171.2
Total	266.9	1,152.5	559.6	417.4	2,396.4	779.2	1,359.3	493.7	538.8	3,171.2
Hancock										
Hancock	159.0	562.5	276.2	172.6	1,170.2	414.1	789.8	241.8	204.5	1,650.2
Total	159.0	562.5	276.2	172.6	1,170.2	414.1	789.8	241.8	204.5	1,650.2
Piscataquis										
Piscataquis	180.9	1,427.4	504.5	751.1	2,863.9	695.3	1,860.5	537.7	1,383.3	4,476.9
Total	180.9	1,427.4	504.5	751.1	2,863.9	695.3	1,860.5	537.7	1,383.3	4,476.9
Capitol Region										
Kennebec	163.2	124.0	181.8	198.2	667.2	464.1	150.3	198.4	274.5	1,087.3
Knox	39.9	110.5	59.7	48.0	258.0	92.1	145.9	34.3	77.2	349.5
Lincoln	158.2	83.1	116.3	76.0	433.6	459.4	148.6	116.9	108.3	833.2
Waldo	93.6	183.7	191.9	105.7	574.8	321.2	233.5	157.4	120.2	832.3
Total	455.0	501.2	549.6	427.9	1,933.7	1,336.8	678.4	506.9	580.2	3,102.4
Somerset										
Somerset	204.0	1,264.7	699.1	763.7	2,931.4	567.1	1,474.6	730.7	1,292.3	4,064.7
Total	204.0	1,264.7	699.1	763.7	2,931.4	567.1	1,474.6	730.7	1,292.3	4,064.7
Casco Bay										
Androscoggin	112.7	75.8	107.6	84.0	380.2	305.9	150.6	103.1	114.0	673.6
Cumberland	264.2	147.9	180.3	216.2	808.7	686.8	234.6	123.2	348.9	1,393.5
Sagadahoc	50.6	80.1	47.7	46.7	225.1	151.8	138.4	26.5	49.7	366.4
York	316.2	132.2	253.5	225.4	927.3	935.6	237.0	230.2	282.6	1,685.4
Total	743.7	436.1	589.1	572.3	2,341.2	2,080.2	760.6	483.0	795.2	4,119.0
Western Maine										
Franklin	60.3	523.5	432.0	429.4	1,445.2	219.0	629.7	380.5	584.0	1,813.2
Oxford	301.6	592.5	484.4	733.8	2,112.1	929.5	889.3	409.5	1,157.8	3,386.0
Total	361.8	1,116.0	916.4	1,163.1	3,557.3	1,148.5	1,519.0	790.0	1,741.8	5,199.2
All counties	2,611.5	9,914.8	5,283.3	5,338.7	23,148.2	7,636.0	12,599.0	4,882.4	8,362.1	33,479.5

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

[1] Doyle rule.

Table ME-60.—Average annual net growth of growing stock and sawtimber (International 1/4-inch rule), on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Forest Survey Unit and county	Growing stock					Sawtimber				
	Major species group					Major species group				
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species
	(In million cubic feet)					(In million board feet)[1]				
Washington										
Washington	7.9	32.5	9.4	3.0	52.8	26.8	81.8	16.3	3.5	128.4
Total	7.9	32.5	9.4	3.0	52.8	26.8	81.8	16.3	3.5	128.4
Aroostook										
Aroostook	3.4	67.0	23.6	17.4	111.4	11.9	159.0	47.1	51.4	269.5
Total	3.4	67.0	23.6	17.4	111.4	11.9	159.0	47.1	51.4	269.5
Penobscot										
Penobscot	10.5	27.7	13.1	10.7	62.0	36.5	79.5	33.3	30.4	179.7
Total	10.5	27.7	13.1	10.7	62.0	36.5	79.5	33.3	30.4	179.7
Hancock										
Hancock	6.4	10.1	3.5	3.7	23.6	23.7	32.7	17.9	11.0	85.2
Total	6.4	10.1	3.5	3.7	23.6	23.7	32.7	17.9	11.0	85.2
Piscataquis										
Piscataquis	6.5	31.8	10.6	14.0	62.9	27.3	90.2	21.3	52.8	191.7
Total	6.5	31.8	10.6	14.0	62.9	27.3	90.2	21.3	52.8	191.7
Capitol Region										
Kennebec	4.5	3.2	3.7	6.5	18.0	22.2	10.2	16.1	22.7	71.2
Knox	2.0	3.4	3.3	1.6	10.2	8.4	6.4	3.0	3.9	21.7
Lincoln	6.3	1.3	3.7	4.4	15.7	30.8	9.7	10.8	12.1	63.3
Waldo	3.0	2.5	3.0	4.0	12.5	15.5	6.3	6.3	7.7	35.8
Total	15.8	10.5	13.6	16.4	56.4	76.9	32.6	36.1	46.4	192.0
Somerset										
Somerset	8.6	31.9	13.3	11.9	65.7	30.0	77.3	37.6	39.3	184.1
Total	8.6	31.9	13.3	11.9	65.7	30.0	77.3	37.6	39.3	184.1
Casco Bay										
Androscoggin	3.1	1.1	2.1	5.8	12.1	15.4	4.7	3.3	16.6	40.1
Cumberland	5.8	3.4	4.1	6.6	19.8	31.1	11.7	10.7	30.9	84.4
Sagadahoc	1.2	2.1	1.3	1.7	6.2	6.0	8.7	2.1	4.9	21.7
York	5.8	3.3	6.8	7.1	23.1	30.3	11.1	15.9	23.9	81.2
Total	15.8	9.8	14.4	21.3	61.3	82.9	36.2	32.0	76.3	227.4
Western Maine										
Franklin	2.0	10.0	10.2	11.2	33.4	9.5	32.1	24.5	36.3	102.4
Oxford	9.6	12.1	7.9	14.1	43.7	48.4	47.9	23.3	48.8	168.4
Total	11.6	22.1	18.2	25.3	77.1	57.9	80.0	47.9	85.0	270.8
All counties	86.6	243.4	119.6	123.7	573.2	374.0	669.3	289.5	396.2	1,728.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

[1] International 1/4-inch rule.

Table ME-60a.—Average annual net growth of growing stock and sawtimber (Doyle rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Forest Survey Unit and county	Growing stock					Sawtimber				
	Major species group					Major species group				
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species
	(In million cubic feet)					(In million board feet)[1]				
Washington										
Washington	7.9	32.5	9.4	3.0	52.8	13.0	32.9	7.6	1.6	55.1
Total	7.9	32.5	9.4	3.0	52.8	13.0	32.9	7.6	1.6	55.1
Aroostook										
Aroostook	3.4	67.0	23.6	17.4	111.4	6.2	64.5	19.1	20.0	109.9
Total	3.4	67.0	23.6	17.4	111.4	6.2	64.5	19.1	20.0	109.9
Penobscot										
Penobscot	10.5	27.7	13.1	10.7	62.0	22.4	34.2	14.9	14.1	85.7
Total	10.5	27.7	13.1	10.7	62.0	22.4	34.2	14.9	14.1	85.7
Hancock										
Hancock	6.4	10.1	3.5	3.7	23.6	13.3	14.6	8.4	4.9	41.2
Total	6.4	10.1	3.5	3.7	23.6	13.3	14.6	8.4	4.9	41.2
Piscataquis										
Piscataquis	6.5	31.8	10.6	14.0	62.9	20.0	35.4	8.4	25.2	88.9
Total	6.5	31.8	10.6	14.0	62.9	20.0	35.4	8.4	25.2	88.9
Capitol Region										
Kennebec	4.5	3.2	3.7	6.5	18.0	14.5	4.9	7.5	11.7	38.6
Knox	2.0	3.4	3.3	1.6	10.2	5.2	2.2	1.4	2.1	10.8
Lincoln	6.3	1.3	3.7	4.4	15.7	19.6	5.0	5.1	6.0	35.7
Waldo	3.0	2.5	3.0	4.0	12.5	10.3	2.5	2.3	3.9	19.0
Total	15.8	10.5	13.6	16.4	56.4	49.6	14.5	16.2	23.8	104.1
Somerset										
Somerset	8.6	31.9	13.3	11.9	65.7	19.3	32.6	16.7	14.9	83.5
Total	8.6	31.9	13.3	11.9	65.7	19.3	32.6	16.7	14.9	83.5
Casco Bay										
Androscoggin	3.1	1.1	2.1	5.8	12.1	8.9	2.1	1.4	9.4	21.8
Cumberland	5.8	3.4	4.1	6.6	19.8	18.6	6.4	4.6	15.5	45.1
Sagadahoc	1.2	2.1	1.3	1.7	6.2	4.0	4.7	1.0	2.4	12.0
York	5.8	3.3	6.8	7.1	23.1	17.5	6.0	7.5	11.1	42.0
Total	15.8	9.8	14.4	21.3	61.3	48.9	19.2	14.5	38.3	120.9
Western Maine										
Franklin	2.0	10.0	10.2	11.2	33.4	6.5	12.4	11.4	18.4	48.7
Oxford	9.6	12.1	7.9	14.1	43.7	32.3	22.2	9.7	22.4	86.6
Total	11.6	22.1	18.2	25.3	77.1	38.7	34.6	21.1	40.8	135.3
All counties	86.6	243.4	119.6	123.7	573.2	231.3	282.5	127.0	183.6	824.4

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

[1] Doyle rule.

Table ME-61.—Average annual removals of growing stock and sawtimber (International 1/4-inch rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Forest Survey Unit and county	Growing stock					Sawtimber				
	Major species group					Major species group				
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species
	(In million cubic feet)					(In million board feet)[1]				
Washington										
Washington	3.9	28.9	9.9	3.4	46.0	18.5	73.8	13.2	4.1	109.6
Total	3.9	28.9	9.9	3.4	46.0	18.5	73.8	13.2	4.1	109.6
Aroostook										
Aroostook	0.0	72.7	25.3	31.5	129.5	--	204.8	72.8	102.0	379.5
Total	0.0	72.7	25.3	31.5	129.5	--	204.8	72.8	102.0	379.5
Penobscot										
Penobscot	4.6	30.6	14.9	13.9	64.0	17.0	88.2	35.7	36.3	177.3
Total	4.6	30.6	14.9	13.9	64.0	17.0	88.2	35.7	36.3	177.3
Hancock										
Hancock	0.4	6.5	4.9	5.1	16.9	1.7	19.4	8.2	10.3	39.7
Total	0.4	6.5	4.9	5.1	16.9	1.7	19.4	8.2	10.3	39.7
Piscataquis										
Piscataquis	2.4	53.4	13.1	18.8	87.8	11.0	130.5	35.2	64.6	241.3
Total	2.4	53.4	13.1	18.8	87.8	11.0	130.5	35.2	64.6	241.3
Capitol Region										
Kennebec	0.9	2.3	5.0	1.3	9.4	4.0	6.3	17.4	0.9	28.6
Knox	--	0.2	0.1	--	0.3	--	--	--	--	--
Lincoln	1.8	0.3	0.1	0.1	2.2	7.6	--	--	--	7.6
Waldo	1.3	0.8	1.4	1.9	5.4	6.2	2.0	2.0	4.7	14.9
Total	3.9	3.5	6.5	3.3	17.3	17.7	8.3	19.4	5.7	51.1
Somerset										
Somerset	5.4	27.8	25.8	29.0	87.9	25.4	78.9	81.3	104.9	290.5
Total	5.4	27.8	25.8	29.0	87.9	25.4	78.9	81.3	104.9	290.5
Casco Bay										
Androscoggin	3.2	0.9	1.1	2.4	7.6	13.4	1.9	2.0	8.3	25.6
Cumberland	8.6	2.6	2.9	2.2	16.4	37.3	9.3	8.6	7.5	62.6
Sagadahoc	0.4	--	0.4	0.8	1.6	1.7	--	1.2	3.2	6.0
York	4.3	0.1	2.4	1.0	7.7	19.3	--	5.1	1.0	25.4
Total	16.5	3.5	6.9	6.3	33.2	71.7	11.1	16.9	19.9	119.7
Western Maine										
Franklin	2.2	9.1	13.3	5.3	29.8	8.5	23.8	35.7	10.5	78.5
Oxford	9.8	11.9	9.4	18.8	49.8	41.1	35.0	18.4	55.3	149.8
Total	11.9	21.0	22.7	24.1	79.6	49.6	58.8	54.1	65.8	228.3
All counties	49.0	248.0	130.0	135.3	562.2	212.6	673.8	336.9	413.6	1,636.8

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

[1] International 1/4-inch rule.

Table ME-61a.—Average annual removals of growing stock and sawtimber (Doyle rule) on timberland by Forest Survey Unit, county, and major species group, Maine, 2003 to 2008

Forest Survey Unit and county	Growing stock					Sawtimber				
	Major species group					Major species group				
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species
	(In million cubic feet)					(In million board feet)[1]				
Washington										
Washington	3.9	28.9	9.9	3.4	46.0	13.2	34.5	6.2	2.0	55.8
Total	3.9	28.9	9.9	3.4	46.0	13.2	34.5	6.2	2.0	55.8
Aroostook										
Aroostook	0.0	72.7	25.3	31.5	129.5	--	107.2	37.8	60.3	205.3
Total	0.0	72.7	25.3	31.5	129.5	--	107.2	37.8	60.3	205.3
Penobscot										
Penobscot	4.6	30.6	14.9	13.9	64.0	10.3	49.9	17.7	22.0	99.8
Total	4.6	30.6	14.9	13.9	64.0	10.3	49.9	17.7	22.0	99.8
Hancock										
Hancock	0.4	6.5	4.9	5.1	16.9	1.1	12.3	4.6	4.3	22.2
Total	0.4	6.5	4.9	5.1	16.9	1.1	12.3	4.6	4.3	22.2
Piscataquis										
Piscataquis	2.4	53.4	13.1	18.8	87.8	7.7	63.7	20.3	38.3	130.0
Total	2.4	53.4	13.1	18.8	87.8	7.7	63.7	20.3	38.3	130.0
Capitol Region										
Kennebec	0.9	2.3	5.0	1.3	9.4	3.7	3.8	9.6	0.4	17.4
Knox	--	0.2	0.1	--	0.3	--	--	--	--	--
Lincoln	1.8	0.3	0.1	0.1	2.2	5.3	--	--	--	5.3
Waldo	1.3	0.8	1.4	1.9	5.4	4.9	0.8	0.9	2.4	8.9
Total	3.9	3.5	6.5	3.3	17.3	13.9	4.5	10.5	2.8	31.7
Somerset										
Somerset	5.4	27.8	25.8	29.0	87.9	19.5	42.7	48.9	61.4	172.5
Total	5.4	27.8	25.8	29.0	87.9	19.5	42.7	48.9	61.4	172.5
Casco Bay										
Androscoggin	3.2	0.9	1.1	2.4	7.6	7.3	0.9	0.8	4.2	13.1
Cumberland	8.6	2.6	2.9	2.2	16.4	25.7	6.2	5.0	3.6	40.5
Sagadahoc	0.4	--	0.4	0.8	1.6	0.8	--	0.7	1.7	3.2
York	4.3	0.1	2.4	1.0	7.7	14.9	--	2.2	0.3	17.4
Total	16.5	3.5	6.9	6.3	33.2	48.7	7.1	8.7	9.9	74.3
Western Maine										
Franklin	2.2	9.1	13.3	5.3	29.8	5.6	11.5	19.5	4.5	41.1
Oxford	9.8	11.9	9.4	18.8	49.8	30.3	16.4	8.4	33.3	88.4
Total	11.9	21.0	22.7	24.1	79.6	36.0	27.9	27.9	37.8	129.5
All counties	49.0	248.0	130.0	135.3	562.2	150.2	349.9	182.4	238.6	921.1

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

[1] Doyle rule.

Table ME-65.—Sampling errors, in percent, for net volume, average annual net growth, average annual removals, and average annual mortality on timberland, and forest and timberland area by inventory unit and county, Maine, 2008

Inventory unit and county	Forest area	Timberland area	Growing stock				Sawtimber			
			Volume	Average annual net growth	Average annual removals	Average annual mortality	Volume	Average annual net growth	Average annual removals	Average annual mortality
Washington										
Washington	1.21	1.62	4.83	5.62	18.79	12.59	7.32	9.14	21.38	29.35
Total	1.21	1.62	4.83	5.62	18.79	12.59	7.32	9.14	21.38	29.35
Aroostook										
Aroostook	0.89	1.00	3.05	4.96	11.89	7.32	4.62	8.15	13.21	11.31
Total	0.89	1.00	3.05	4.96	11.89	7.32	4.62	8.15	13.21	11.31
Penobscot										
Penobscot	1.22	1.47	4.31	5.49	17.20	9.13	6.61	6.84	20.17	15.31
Total	1.22	1.47	4.31	5.49	17.20	9.13	6.61	6.84	20.17	15.31
Hancock										
Hancock	1.73	2.68	6.12	9.69	27.93	12.44	9.14	10.06	33.21	21.70
Total	1.73	2.68	6.12	9.69	27.93	12.44	9.14	10.06	33.21	21.70
Piscataquis										
Piscataquis	0.75	1.38	3.98	8.94	14.96	9.14	5.48	9.48	16.16	13.24
Total	0.75	1.38	3.98	8.94	14.96	9.14	5.48	9.48	16.16	13.24
Capitol Region										
Kennebec	5.29	5.29	9.35	11.75	36.97	17.61	13.69	13.08	40.05	32.70
Knox	8.56	8.56	17.09	48.79	76.31	30.76	21.40	48.47	- -	36.90
Lincoln	4.58	4.58	10.18	31.70	70.21	25.76	15.12	28.89	85.71	47.96
Waldo	3.57	3.57	8.93	14.60	37.18	22.89	15.44	16.74	44.51	34.26
Total	2.31	2.31	5.05	13.57	24.32	12.45	7.88	12.33	28.34	22.36
Somerset										
Somerset	0.93	1.09	3.40	7.43	14.64	8.22	5.26	9.18	16.09	13.39
Total	0.93	1.09	3.40	7.43	14.64	8.22	5.26	9.18	16.09	13.39
Casco Bay										
Androscoggin	5.99	6.06	13.48	15.59	42.45	24.44	20.41	18.18	42.65	38.18
Cumberland	5.26	5.26	7.40	11.62	31.93	23.26	9.83	12.37	34.58	36.62
Sagadahoc	5.86	5.86	15.70	25.11	88.32	24.18	25.29	25.48	99.36	52.54
York	3.98	3.98	6.96	9.94	39.50	31.52	9.79	13.82	43.25	48.44
Total	2.48	2.48	4.58	6.56	21.17	14.99	6.56	7.85	22.84	25.70
Western Maine										
Franklin	1.61	2.16	5.49	13.08	26.79	10.39	8.61	13.25	32.87	18.06
Oxford	1.39	1.61	4.39	6.67	18.53	10.88	6.43	7.88	23.21	18.73
Total	1.05	1.31	3.43	6.87	15.36	7.52	5.15	7.06	18.98	13.05
All counties	0.41	0.50	1.35	2.54	5.68	3.22	2.03	3.00	6.44	5.43

http://www.nrs.fs.fed.us/