United States
Department of
Agriculture

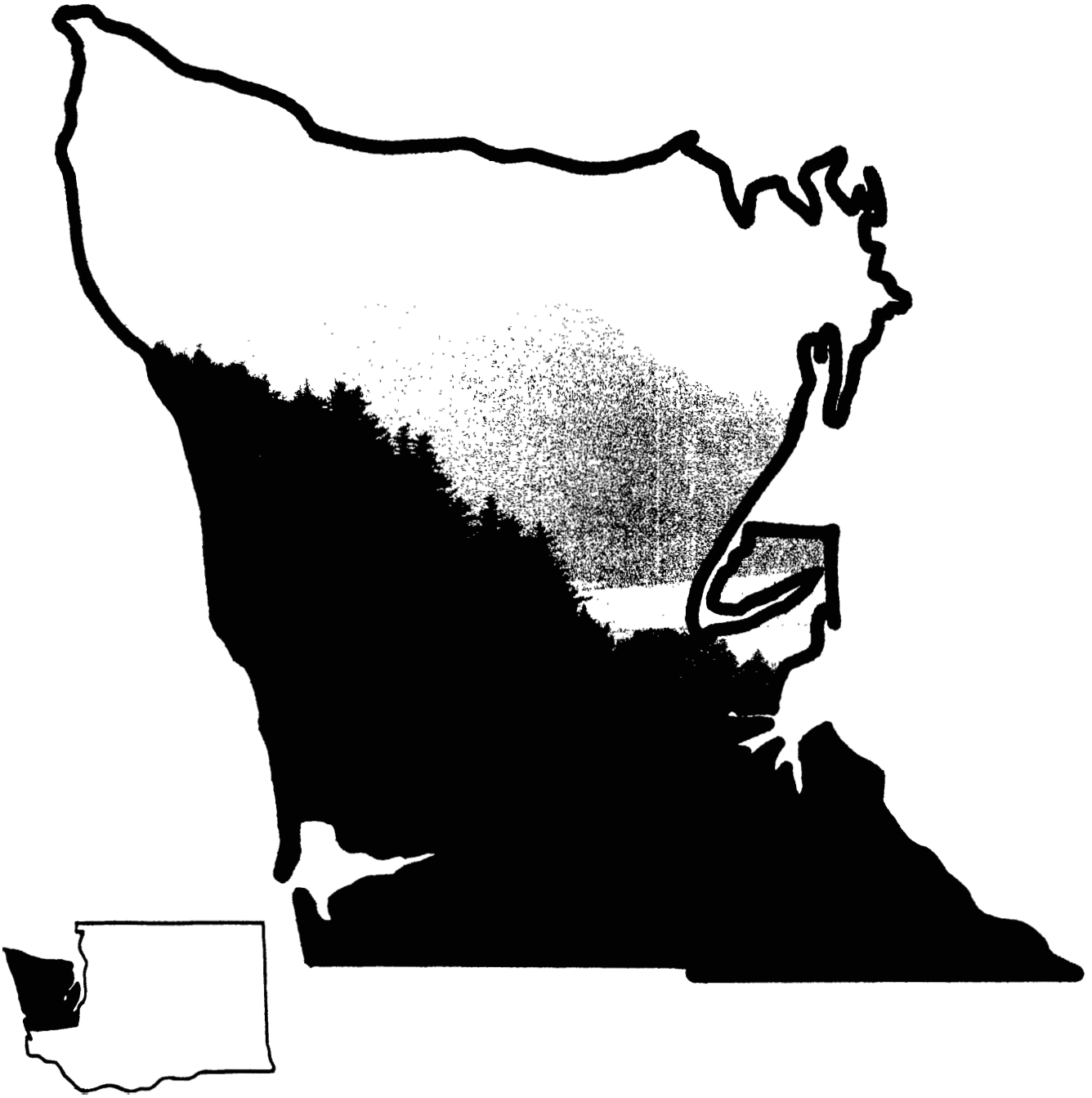
Forest Service

Pacific Northwest
Research Station

Resource Bulletin
PNW-RB-178
August 1991

Preliminary Timber Resource Statistics for the Olympic Peninsula, Washington

Colin D. MacLean, Janet L. Ohmann, and Patricia M. Bassett



Authors

COLIN D. **MacLEAN is a mensurationist, JANET L. OHMANN is a research forester, and PATRICIA M. BASSETT is a programmer/analyst, Forestry Sciences Laboratory,** P.O. **Box 3890, Portland, Oregon 97208-3890.**

Abstract

MacLean, Colln D.; Ohmann, Janet L.; Bassett, Patricia M. 1991. Preliminary timber resource statistics for the Olympic Peninsula, Washington. Resour. Bull. PNW-RB-178. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 45 p.

This report summarizes a 1989 timber resource inventory of five counties in the Olympic Peninsula region of Washington: Clallarn, Grays Harbor, Jefferson, Mason, and Thurston. Detailed tables of forest area, timber volume, growth, mortality, and harvest are presented.

Keywords: Forest surveys, forest inventory, statistics (forest), timber resources, resources (forest), Olympic Peninsula, Washington (Olympic Peninsula).

Summary

The Olympic Peninsula of western Washington (Clallam, Grays Harbor, Jefferson, Mason, and Thurston Counties) totals 4,578,000 acres, of which an estimated 3,945,000 acres are forested and an estimated 3,042,000 acres are classified as timberland. The area has 12.9 billion cubic feet of standing timber with 45 percent of this volume in public ownership.

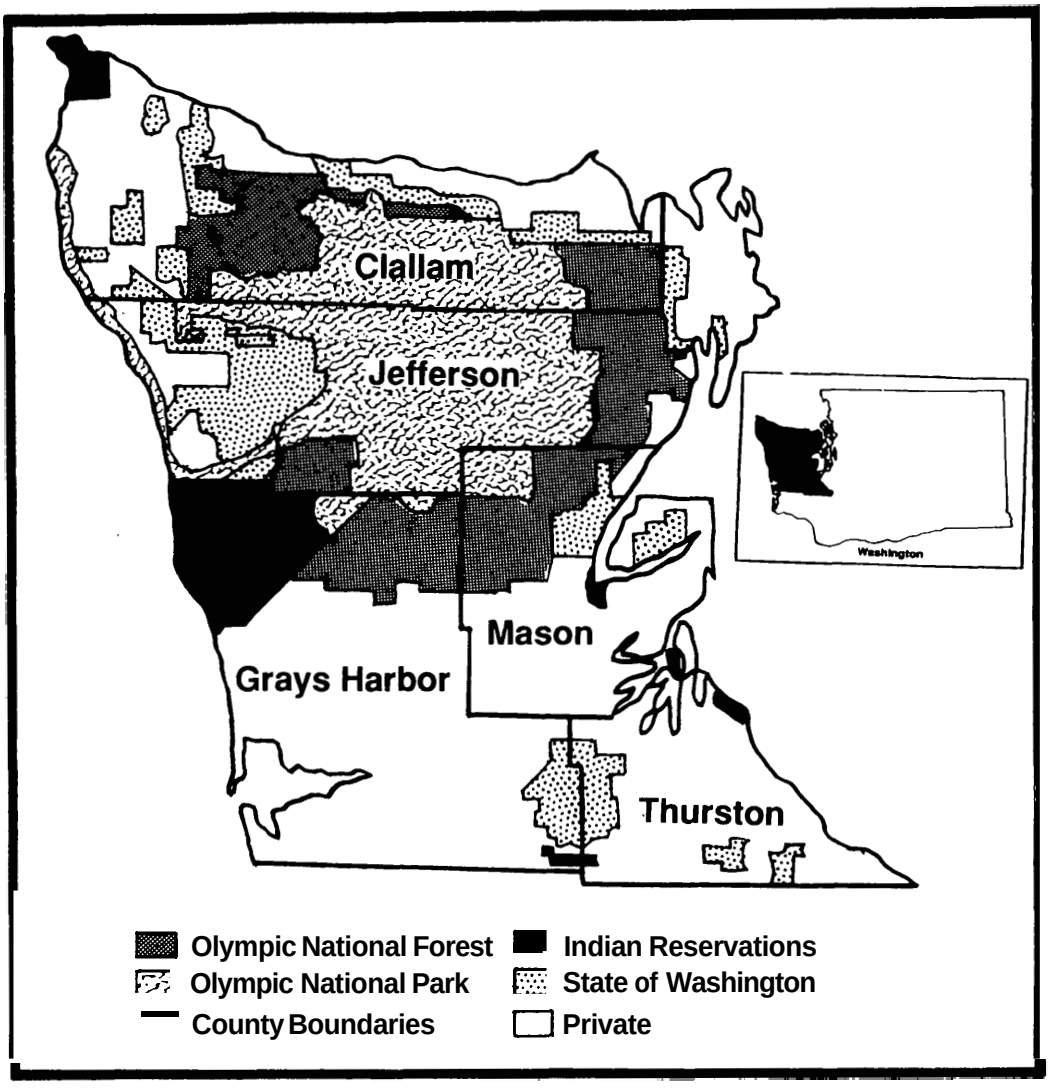
Preface

Forest Inventory and Analysis is a nationwide project of the USDA Forest Service authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. Work units of the project, located at Forest Service research and experiment stations, conduct forest resource inventories throughout the 50 States. The Pacific Northwest Research Station at Portland, Oregon, is responsible for inventories in Alaska, California, Hawaii, Oregon, and Washington.

Contents

Tables

Map of Olympic Peninsula, Washington



Introduction

This report presents statistics fmm the **1988-89** inventory of the timber resources of five counties (Clallam, Grays Harbor, Jefferson, Mason, and Thurston) on the Olympic Peninsula, Washington. The Olympic Peninsula was first inventoried in **1932;** subsequent inventories were taken in **1937-40, 1951-60, 1965** and **1978-79.**

Field data for all private land and all public land except for National Forests were collected in **1988** and **1989** by the Forest Inventory and Analysis Work Unit (FIA) of the Pacific Northwest Research Station. Inventory data for National Forest land were collected in **1975** by personnel of the Olympic National Forest.

The statistical tables presented in this report differ in format from those appearing in earlier inventory reports (Bassett and Oswald **1981,** Bolsinger **1971).** The western **core** tables (tables **1-22)** are standard tables designed to provide consistent resource data for all Western States and will be included in statistical reports prepared by the FIA work units in Anchorage, AK; Ogden, UT; and Portland, OR. The supplemental tables (tables **23-33)** include both information previously reported by the Portland FIA unit but not included in the core tables and new information not previously reported but requested by users of our inventory data. With minor exceptions, all the resource statistics provided by Bassett and Oswald **(1981)** have been updated to January **1, 1990,** and appear in this report.[1]

Scientific names of trees (Little **1979)** are given on page **8** of this report. See "Terminology" for definitions of terms used in this report.

Inventory Procedures

For lands other than National Forests, the sampling design was double sampling for stratification (Cochran **1977).** The primary sample was a grid of **6,500** photo points established in **1978-79** and reexamined in **1988-89.** At each photo point, owner group and major land class (timberland, other forest, nonforest) were identified and, on forested points, stage of development, major type, and broad stocking class were determined. The secondary sample was a grid of **412** field plots that subsarnpled the primary grid at about every 16th photo point. During the **1965** inventory, permanent plots were established at every timberland location on the field plot grid. Each of these plots consisted of **10** variable-radius points distributed over **1** acre. In **1979,** these 10-point plots were replaced with 5-point plots that sampled about **8** acres (MacLean **1980).** In **1988-89,** the 5-point plots were remeasured and the data combined with new classifications on the 6,500 photo points to provide current estimates of timber volume, growth, mortality, removals, and area attributes such as forest type, site class, and stand-size class.

Olympic National Forest

The area of timberland, other forest land, resewed forest land, and nonforest land on the Olympic National Forest was determined from maps prepared from aerial photographs. The inventory was restricted to the timberland area, where a 1.7-mile grid of **1**0-point field plot clusters was established. Recent clearcuts and young plantations were excluded from the inventory.

---

[1] An electronic version of tables in this report is available in Lotus 1-2-3 spreadsheet format. Send computer disk and self-addressed mailing envelop to Forest Inventory and Analysis, P.O. Box 3890, Portland, OR 97208-3890. (Mention of a commercial or proprietary product does not constitute endorsement by the USDA).

The inventory statistics reported here have been updated to reflect the effects of harvesting activities between 1976 and 1989. Statistics for unsampled areas and for areas harvested since 1976 were based on stand examination records and other ancillary data. Further information can be obtained from the USDA Forest Service, Pacific Northwest Region, Division of Timber Management, P.O. Box 3623, Portland, OR 97208-3623.

Changes Since the Previous Inventory

About 12,000 acres were recently transferred from the Olympic National Forest to the Quinault Indian Reservation.

Tables 30, 31, and 32 present information on the changes in area and volume that have occurred outside the Olympic National Forest since the 1979 inventory. Detailed information on changes on these lands will be presented in a later publication. Information is not available now about changes in timberland area and volume that have taken place within the Olympic National Forest. Comparisons of statistics from this report with those presented by Bassett and Oswald (1981) are unreliable estimators of change for the following reasons:

1. The accuracy of the current inventory statistics was improved by new photo interpretation on the latest available aerial photographs. To make use of this new information, new stratum weights were calculated to expand the field plots. Thus, even though the same photo points and field plots were used for each inventory, any given field plot in the current inventory represents a slightly different number of acres than it did in the earlier inventory.

2. We try constantly to improve the data base. On some plots, better site tree were obtained, thus improving our estimate of site capability. For hemlock sites, the availability of new site curves (Wiley 1978) permitted improved estimates of site. After careful examination, ownership or land class was revised on a few plots. These changes reflect new information or reevaluation, not resource change.

3. Ownership classifications have been revised since the last inventory. In 1978, forest industry lands were defined as lands belonging to companies or individuals operating wood-using plants. Because this definition no longer identifies most industrial timber growers, we have broadened the definition to include all companies holding land for timber production. Native American lands are now classed as "other private" at the request of the owners. These lands were previously shown in "other public" ownership.

Reliability of Inventory Data

National Forest area statistics are based on maps and therefore are without sampling error. All other area and volume statistics are based on sampling and are subject to sampling error. Confidence intervals (68-percent probability) for the estimated timberland area, cubic-foot volume, and net annual cubic-foot growth by owner class are as follows:

Owner	Timberland area	Net volume	Net annual growth
	Thousand acres	*– – – Million cubic feet – – –*	
National Forest	500± 0	2,382±NA	14fNA
Other public	604±17	3,408±252	99± 8
Forest industry	1,289±20	5,232±282	203±10
Other private	648±28	1,875±207	69± 9
All owners, other than National Forest	2,541220	10,515±419	371±15
All owners	3,041±20	12,898±NA	385±NA

Confidence intervals are quantitative expressions of the reliability of the timberland area, volume, and growth statistics. The above tabulation indicates, for instance, a two-in-three (68-percent) chance that the timberland area for all owners other than National Forest is within the range of 2,521,000 to 2,561,000 acres.

Confidence intervals vary by both size of the estimate and variance of the item being estimated. If variance is assumed constant, confidence intervals can be approximated for estimates of various sizes. The confidence interval guides that follow are based on the assumption that an average relation exists between variance and the size of the estimates, and thus they provide only an approximation of the reliability of individual estimates.

The following tabulations approximate confidence bounds for table cells of various sizes in this report:

	Confidence Interval	
Timberland area	By owner	By type or class
	Thousand acres	
1,000	+20	±66
800	+18	±59
600	+16	f52
400	+14	f44
200	±11	+32
100	±8	f24
50	±6	f18
25	f 5	f13
15	f 4	±10
10	±3	±9

Growing stock volume	Confidence interval		Net growth	Confidence intewal	
	By species	By type		By species	By type
	Million cubic feet			*Thousand cubic feet*	
8,000	±372	±620	400,000	±23,354	±28,307
6,000	±307	S30	200,000	±15,123	419,272
4,000	±234	4424	100,000	f 9,793	±13,121
2,000	f147	±289	50,000	±6,342	±8,933
1,000	±92	f197	25,000	±4,107	±6,082
800	f80	±175	15,000	±2,981	44,482
600	+66	4149	10,000	±2,312	±3,659
400	+50	±119	5,000	±1,497	±2,491
200	f31	k81	1,000	±545	±1,000
100	+20	±55	500	±354	±500
50	+12	+38	100	±100	±100
25	f8	±26	10	±10	±10
15	±6	415			
10	f4	±10			
5	f3	±5			

Actual confidence intervals have been calculated for the tabular data in this report and are available on request from the Forest Inventory and Analysis Research Work Unit, Forestry Sciences Laboratory, P.O. Box 3890, Portland, Oregon 97208-3890.

Terminology

Class of timber—A classification of trees as growing stock, cull, and salvable dead. Growing-stock trees are divided into poletimber and sawtimber trees.

County and municipal lands—Lands owned by county and other local public agencies.

Cull trees—Live trees of noncommercial species, or live trees of commercial species that are more than 75 percent defective.

Cull trees, rotten—Cull trees with defect caused primarily by rot.

Cull trees, sound—Trees of noncommercial species or cull trees of commercial species with defect caused primarily by poor form and roughness.

Diameter class—A classification of trees based on diameter outside the bark measured at breast height, 4-1/2 feet above the ground. D.b.h. is the common abbreviation for "diameter at breast height."

Even-aged—Stands where 70 percent or more of the stocking falls within three adjacent 10-year age classes.

Farmer owned—Lands owned by the operators of farms.

Forest industry lands—Lands owned by companies that grow timber for industrial use. Includes companies both with and without wood processing plants.

Forest land—Land at least 10 percent stocked by live trees or land formerly having such tree cover and not currently developed for nonforest use. The minimum area recognized is 1 acre.

Forest types—Stands with 70 percent or more of the stocking in live conifer trees are classed as pure softwood types; stands with 50 to 69 percent of the stocking in live conifer trees are classed as softwood/hardwood types. Stands with 70 percent or more of the stocking in live hardwood trees are classed as pure hardwood types; stands with 50 to 69 percent of the stocking in live hardwood trees are classed as hardwood/softwood types. The specific forest type reflects the individual species of live softwood or hardwood tree with the greatest total stocking.

Growing-stock trees—All live trees except cull trees.

Growing-stock volume–Net volume in cubic feet of live sawtimber and poletimber growing-stock trees from 12-inch stump to a minimum 4-inch top (of central stem) outside the bark. Net volume equals gross volume less deduction for rot and missing bole sections.

Growth, current net annual—The net increase in volume of trees during a specified year. Components of net annual growth include (a) the increment in net volume of sawtimber and poletimber trees alive at the beginning of the year and surviving to the year's end, plus (b) the net volume of trees reaching poletimber or sawtimber size during the period, minus (c) mortality—the net volume of trees that died during the year.

Growth, periodic gross—The increase in volume of trees, during a specified period, attributable to increasing tree size. Gross growth includes (a) the increment in net volume of trees alive at the beginning of the specified period and surviving to the period's end, (b) the increment in net volume of trees alive at the beginning of the specified period and harvested during the period, and (c) ingrowth—the net volume of trees reaching poletimber or sawtimber size during the period.

Hardwoods—Nonconiferous trees, usually broad-leaved.

Industrial wood—All commercial roundwood products except fuelwood.

Land area—Area reported as land by the Bureau of the Census. Total land area includes dry land and land temporarily or partially covered by water such as marshes, swamps, and river flood plains; streams, sloughs, and canals less than one-eighth mile wide; and lakes, reservoirs, and ponds less than 40 acres in area.

Land class—A classification of land by major use. The minimum area for classification is 1 acre.

Mean annual increment—A measure of the productivity of forest land in terms of the average increase in cubic-foot volume per acre per year. For a given species and site index, the average is based on the age at which the mean annual increment culminates for fully stocked stands. When productivity is calculated, nonforest inclusions of less than 1 acre are excluded.

Miscellaneous Federal lands—Federal lands other than lands administered by the Forest Service or the Bureau of Land Management.

Miscellaneous private owners—All private owners not otherwise classified.

Mortality, average annual—Annual loss of growing-stock volume from trees dying between inventories (in the Olympic Peninsula area, between 1979 and 1989). Sometimes shown as periodic mortality—the loss between inventories.

National Forest lands—Federal lands that have been designated by Executive Order or statute as National Forest or purchase units and other lands under the administration of the Forest Service, U.S. Department of Agriculture, including experimental areas and Bankhead-Jones Title III lands.

Native American lands—Tribal and allotted lands held in trust by the Federal Government. Native American lands are grouped with farmer and miscellaneous private lands as other private.

Noncommercial species—A tree species not suitable for industrial wood products.

Nonforest land—Land that has never supported forests or was formerly forested and is currently developed for nonforest uses. Included are lands used for agricultural crops, Christmas tree farms, improved pasture, residential areas, city parks, constructed roads, operating railroads and their right-of-way clearings, powerline and pipeline clearings, streams more than 30 feet wide, and 1- to 40-acre areas of water classified by the Bureau of the Census, U.S. Department of Commerce, as land. If intermingled in forest areas, unimproved roads and other nonforest strips must be more than 120 feet wide, and clearings or other areas must be 1 acre or larger to qualify as nonforest land.

Nonstocked areas—Timberland less than 10 percent stocked with growing-stock trees.

Other forest land—Forest land incapable of producing 20 cubic feet per acre per year of industrial wood because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

Other private lands—Private lands not owned by forest industry. Farmer-owned lands, Native American lands, and miscellaneous private lands are included.

Other public lands—Lands administered by public agencies other than the Forest Service, U.S. Department of Agriculture.

Poletimber stands—Stands with a mean diameter (weighted by basal area) from 5.0 to 9.0 inches if softwood and from 5.0 to 11.0 inches if hardwood.

Poletimber trees—Live trees of commercial species, of good form and vigor, that are at least 5.0 inches in d.b.h. but smaller than sawtimber size.

Removals, average annual—The annual volume of trees removed by cutting, bulldozing, girdling, or poisoning during a specified period. Includes timber removed by harvest, silvicultural activity, and land clearing. Sometimes shown as periodic removals—the removals between inventories.

Resewed timberland—Land capable of producing 20 cubic feet or more per acre per year but withdrawn from timber utilization through statute, ordinance, or administrative order.

Roundwood—Logs, bolts, or other round sections cut from trees.

Salvable dead trees—Dead trees-either standing or down—of commercial species and at least 9.0 inches in d.b.h. if softwood and at least 11.0 inches in d.b.h. if hardwood, containing 25 percent or more sound wood volume and at least one merchantable 12-foot log if softwood or one merchantable 8-foot log if hardwood.

Sapling and seedling stand ——tands with a mean diameter (weighted by basal area) less than 5.0 inches.

Sapling and seedling trees—Live trees of commercial species less than 5.0 inches in d.b.h., with no diseases, defects, or deformities likely to prevent their becoming poletimber trees.

Saw-log portion—The bole of sawtimber trees between the stump and the saw-log top.

Sawtimber stand ——Ctands with a mean diameter (weighted by basal area) larger than 9.0 inches if softwood and larger than 11.0 inches if hardwood.

Sawtimber trees—Live softwood trees of commercial species at least 9.0 inches in d.b.h. and live hardwood trees of commercial species at least 11.0 inches in d.b.h. At least 25 percent of the board-foot volume in a sawtimber tree must be free from defect. Softwood trees must contain at least one 12-foot saw log with a top diameter of not less than 6 inches inside bark; hardwood trees must contain at least one 8-foot saw log with a top diameter of not less than 8 inches inside bark.

Sawtlmber volume—Net volume of sawtimber trees measured in board feet. Net sawtimber volume equals gross volume less deduction for rot, sweep, crook, and other defects that affect use for lumber.

Scrlbner rule–The common board-foot log tule used locally in determining volume of sawtimber. Scribner volume is estimated in terms of 32-foot logs for conifers and 16-foot logs for hardwoods.

Site class—A classification of the potential productivity of forest land in terms of mean annual increment.

Site index—A measure of the productivity of forest land in terms of the average height of dominant and codominant trees at a specified age.

Softwoods—Coniferous trees, usually evergreen, with needles or scalelike leaves.

Stand age–The 10-year age class that best characterizes the stand. See "even-aged" and "uneven-aged" for more detail.

Stand-size class—A classification of stands based on tree size. Stand-size classes are large sawtimber, small sawtimber, poletimber, and sapling and seedling stands.

State lands—Lands owned by States or administered by State agencies.

Timber hatvest—Volume of roundwood removed from forest land for products.

Timber **volume**—Includes the net volume in cubic feet of poletimber and sawtimber trees and salvable dead sawtimber trees of all species, the net volume in cubic feet of cull trees of commercial species, and gross volume of noncommercial species. Volume is measured from stump to a minimum 4-inch top outside the bark.

Timberland—Forest land capable of producing 20 cubic feet or more per acre per year of industrial wood and not withdrawn from timber utilization.

Uneven aged—Stands where less than 70 percent of the tree stocking falls in three adjacent 10-year age classes.

Upper-stem **portion**—The bole of sawtimber trees above the saw-log top—7.0 inches outside the bark for softwoods and 9.0 inches outside the bark for hardwoods—to a minimum top diameter of 4.0 inches outside the bark, or to the point where the central stem breaks into limbs.

Names of Trees

Common name	Scientific name
Softwoods:	
Alaska-cedar	***Chamaecyparis nootkatensis*** (D. Don) Spach
Douglas-fir	***Pseudotsuga menziesii*** (Mirb.) Franco
Grand fir	***Abies grandis*** (Dougl. ex D. Don.) Lindl.
Lodgepole pine	***Pinus contorta*** Dougl. ex Loud.
Mountain hemlock	***Tsuga mertensiana*** (Bong.) Carr.
Pacific silver fir	***Abies amabilis*** Dougl. ex Forbes
Pacific yew	***Taxus brevifolia*** Nutt.
Sitka spruce	***Picea sitchensis*** (Bong.) Carr.
Subalpine fir	***Abies lasiocarpa*** (Hook.) Nutt.
Western hemlock	***Tsuga heterophylla*** (Raf.) Sarg.
Western redcedar	***Thuja plicata*** Donn ex D. Don
Western white pine	***Pinus monticola*** Dougl. ex D. Don

Common name'	Scientific name
Hardwoods:	
Bigleaf maple	***Acer macrophyllum*** Pursh
Bitter cherry	***Prunus emarginafa*** Dougl. ex Eaton
Black cottonwood	***Populus trichocarpa*** Torr. & Gray
Oregon ash	***Fraxinus latifolia*** Benth.
Oregon white oak	***Quercus garryana*** Dougl. ex Hook.
Pacific madrone	***Arbutus menziesii*** Pursh
Red alder	***Alnus rubra*** Bong.
Willow	***Salix spp.***

Tables

TABLE 1--AREA BY COUNTY AND LAND CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

	FOREST LAND						
COUNTY	TIMBERLAND	RESERVED TIMBERLAND	OTHER FOREST	RESERVED OTHER FOREST	TOTAL	NONFOREST LAND'	ALL LAND[d]
			THOUSAND ACRES				
CLALLAM	678	182	8	103	972	129	1.101
GRAYS HARBOR	1,079	23	15	2	1,119	113	1,231
JEFFERSON	517	343	7	152	1,019	147	1,166
MASON	462	30	10	17	519	93	612
THURSTON	306	1	8	--	316	152	468
ALL COUNTIES	3,041	579	48	274	3,945	634	4.578

-- = none found or less than 500 acres.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Includes cropland, pasture and range, swampland, industrial and urban areas, powerline clearings, railroads, and all improved roads and highways: and water as classified by Forest Inventory and Analysis standards but defined by the Bureau of the Census as land.

[d] Source: U.S. Department of Commerce 1983.

TABLE 2--AREA OF RESERVED TIMBERLAND AND OTHER FOREST LAND BY FOREST TYPE, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

FOREST TYPE	RESERVED TIMBERLAND	OTHER FOREST		TOTAL
		AVAILABLE	RESERVED	
		THOUSAND ACRES		
DOUGLAS-FIR	198	4	10	212
FIR-SPRUCE	127	5	17	149
HEMLOCK-SITKA SPRUCE	244	7	2	253
OTHER SOFTWOOD TYPES	2	--	--	2
TOTAL	571	16	29	616
WESTERN HARDWOOD TYPES	5	33	--	38
UNCLASSIFIED[c]	--	--	246	246
ALL TYPES	579	48	274	900

-- = none found or less than 500 acres.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[c] Information on forest type unavailable.

TABLE 3--AREA OF TIMBERLAND BY COUNTY AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

COUNTY	PUBLIC					PRIVATE				
		OTHER PUBLIC					OTHER PRIVATE			
	NATIONAL FOREST	MISCELLANEOUS FEDERAL	STATE	COUNTY AND MUNICIPAL	TOTAL PUBLIC	FOREST INDUSTRY	FARMER	NATIVE AMERICAN	MISCEL-LANEOUS	TOTAL PRIVATE	ALL OWNERSHIPS
	THOUSAND ACRES										
CLALLAM	169	1	147	1	318	262	6	25	68	360	678
GRAYS HARBOR	116	--	83	52	251	569	16	137	105	826	1,079
JEFFERSON	115	2	180	1	298	153	--	6	59	218	517
MASON	100	--	56	6	162	209	--	2	90	301	462
THURSTON	--	13	61	1	75	97	19	1	114	231	306
ALL COUNTIES	500	17	527	61	1,105	1,289	41	170	436	1,937	3,041

-- = none found or less than 500 acres.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

TABLE 4--AREA OF TIMBERLAND BY FOREST TYPE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a b]

FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	THOUSAND ACRES				
DOUGLAS-FIR:					
DOUGLAS-FIR	173	246	464	142	1,026
DOUGLAS-FIR/RED ALDER	--	24	27	15	66
DOUGLAS-FIR/OTHER HARDWOOD	--	--	10	9	19
TOTAL	173	270	501	166	1,111
FIR-SPRUCE:					
PACIFIC SILVER FIR	66	11	--	--	77
SUBALPINE FIR	3	--	--	--	3
MOUNTAIN HEMLOCK	2	--	--	--	2
TOTAL	70	11	--	--	81
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	235	188	411	82	917
WESTERN HEMLOCK/RED ALDER	--	18	41	--	59
SITKA SPRUCE	1	--	7	6	14
TOTAL	236	206	460	89	990
LODGEPOLE PINE	--	--	7	17	23
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	5	8	24	79	116
WESTERN REDCEDAR/RED ALDER	--	--	--	12	12
WESTERN REDCEDAR/OTHER HARDWOOD	--	--	10	17	27
ALASKA CEDAR	2	--	--	--	2
UNCLASSIFIED SOFTWOOD TYPE'	4	--	--	--	4
TOTAL	10	8	34	109	161
ALL SOFTWOOD TYPES	489	495	1,001	381	2,366
WESTERN HARDWOOD TYPES:					
RED ALDER	4	32	100	123	259
RED ALDER/CONIFER	--	61	116	20	196
BIGLEAF MAPLE	2	--	9	25	36
BIGLEAF MAPLE/CONIFER	--	--	19	31	50
OREGON ASH	--	--	15	6	21
BLACK COTTONWOOD			9	10	19
PACIFIC MADRONE/CONIFER			--	6	6
WILLOW	--	--	--	6	6
UNCLASSIFIED HARDWOOD TYPE'	4	--	--	--	4
TOTAL	10	93	267	227	597
NONSTOCKED[d]	--	16	21	40	78
ALL TYPES	500	604	1,289	648	3,041

-- - none found or less than 500 acres.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Information on forest type unavailable.

[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 5--AREA OF TIMBERLAND BY OWNER AND STAND-SIZE CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

OWNER	STAND-SIZE CLASS				
	SAWTIMBER	POLETIMBER	SEEDLING-SAPLING	NONSTOCKED[c]	ALL CLASSES
	THOUSAND ACRES				
NATIONAL FOREST	259	81	160	--	500
OTHER PUBLIC	365	53	169	16	604
FOREST INDUSTRY	710	161	398	21	1,289
OTHER PRIVATE	328	106	173	*40*	648
ALL OWNERS	1,663	402	900	78	3,041

-- = none found or less than 500 acres.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[c] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 6--AREA OF TIMBERLAND BY OWNER AND SITE CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

OWNER	SITE CLASS[c] ≥225	165-224	120-164	85-119	50-84	20-49	ALL CLASSES
	THOUSAND ACRES						
NATIONAL FOREST	21	86	139	135	92	25	497
OTHER PUBLIC	108	248	168	52	25	--	600
FOREST INDUSTRY	337	497	327	78	25	14	1,279
OTHER PRIVATE	80	138	247	110	63	6	644
ALL OWNERS	545	970	880	375	205	45	3,021

-- = none found or less than 500 acres.

[a] Totals may be off because of rounding,

[b] Subject to sampling error.

[c] Mean annual cubic-foot growth per acre at culmination, in fully stocked natural stands. Excludes 20,000 acres of included nonforest land less than 1 acre.

TABLE 7--AREA OF TIMBERLAND BY FOREST TYPE AND STAND-SIZE CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

FOREST TYPE	STAND-SIZE CLASS				
	SAWTIMBER	POLETIMBER	SEEDLING-SAPLING	NONSTOCKED[d]	ALL CLASSES
	THOUSAND ACRES				
DOUGLAS-FIR:					
DOUGLAS-FIR	513	132	381	--	1,026
DOUGLAS-FIR/RED ALDER	46	--	20	--	66
DOUGLAS-FIR/OTHER HARDWOOD	10	--	9	--	19
TOTAL	569	132	410	--	1.111
FIR-SPRUCE:					
PACIFIC SILVER FIR	45	9	23	--	77
SUBALPINE FIR	1	2	--	--	3
MOUNTAIN HEMLOCK	2	--	--	--	2
TOTAL	47	11	23	--	81
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	516	79	321	--	917
WESTERN HEMLOCK/RED ALDER	44	9	6	--	59
SITKA SPRUCE	7	--	6	--	14
TOTAL	568	88	334	--	990
LODGEPOLE PINE	23	--	--	--	23
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	57	10	49	--	116
WESTERN REDCEDAR/RED ALDER	12	--	--	--	12
WESTERN REDCEDAR/OTHER HARDWOOD	27	--	--	--	27
ALASKA CEDAR	2	--	--	--	2
UNCLASSIFIED SOFTWOOD TYPE~	--	1	3	--	4
TOTAL	98	11	52	--	161
ALL SOFTWOOD TYPES	1,305	242	819	--	2,366
WESTERN HARDWOOD TYPES:					
RED ALDER	137	90	32	--	259
RED ALDER/CONIFER	134	33	30	--	196
BIGLEAF MAPLE	27	9	--	--	36
BIGLEAF MAPLE/CONIFER	20	21	9	--	50
OREGON ASH	14	--	7	--	21
BLACK COTTONWOOD	19	--	--	--	19
PACIFIC MADRONE/CONIFER	6	--	--	--	6
WILLOW	--	3	3	--	6
UNCLASSIFIED HARDWOOD TYPE'	--	4	--	--	4
TOTAL	358	159	80	--	597
NONSTOCKED[d]	--	--	--	7a	78
ALL TYPES	1,663	402	900	78	3,041

-- = none found or less than 500 acres.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Information on forest type unavailable.

[d] Nonstocked areas are less than 10 percent stocked with live trees scheduled for planting are included. Recent clearcuts

TABLE 8-- NUMBER OF LIVE TREES ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

SPECIES	DIAMETER CLASS (INCHES AT BREAST HEIGHT) 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+	ALL CLASSES
	THOUSAND TREES															
SOFTWOODS:																
WESTERN HEMLOCK	204,115	84,248	44,283	35,003	24,169	18,565	10,800	9,320	5,997	4,017	2,691	2,006	1,369	890	2,610	450,082
DOUGLAS-FIR	79,657	45.605	34,373	29,353	19,115	14,810	11,262	7,519	6,193	4,121	3,764	2,398	1,845	1,439	2,922	264,378
WESTERN REDCEDAR	57,299	22,029	11,100	8,595	3,669	3,519	2,459	1,821	1,380	1,159	732	568	628	460	1,319	116,736
PACIFIC SILVER FIR	6,739	3,558	1,377	1,784	1,474	1,022	581	580	442	307	170	272	165	149	865	19,486
SITKA SPRUCE	10.323	8,395	4,354	2,427	1,816	1,199	876	661	409	391	157	210	86	95	321	31,720
LODGEPOLE PINE	--	1,358	1,944	990	1,573	666	688	292	141	--	--	--	--	--	--	7,652
GRAND FIR	2,025	120	121	371	344	209	35	--	108	71	59	45	--	36	6	3,550
MOUNTAIN HEMLOCK	492	324	67	127	81	44	78	28	29	39	27	11	13	9	51	1,321
ALASKA CEDAR	445	313	130	59	75	36	47	55	69	16	20	19	19	2	26	
WESTERN WHITE PINE	917	1,116	926	367	266	87	--	40	--	8	--	2	13	--	1	3,742
SUBALPINE FIR	1,436	562	483	293	80	106	83	24	43	8	6	--	--	2	5	3,130
PACIFIC YEW	1,574	587	310	--	13	--	28	12	--	--	--	--	--	--	--	2,524
TOTAL SOFTWOODS	365,021	168,217	99,467	79,370	52,676	40,264	26,938	20,353	14,810	10,135	7,626	5.529	4,137	3,082	8,125	905,749
HARDWOODS:																
RED ALDER	57,942	32,541	20,023	19,423	16,829	12,432	7,398	3,573	1,468	713	295	99	50	16	93	172,894
BIGLEAF MAPLE	853	3,402	3,610	3,680	2,367	1,294	1,059	452	404	322	191	155	222	41	209	18,261
BLACK COTTONWOOD	--	--	345	43	68	180	--	116	80	139	64	46	62	64	45	1,251
OREGON ASH	--	829	1,192	536	398	179	504	52	105	68	29	--	--	--	--	3.891
BITTER CHERRY	2,030	1,295	365	875	398	--	55	--	--	--	--	--	--	--	--	5,020
PACIFIC MADRONE	--	588	319	47	339	112	48	62	28	--	--	12	--	--	--	1,556
OREGON WHITE OAK	--	600	150	318	380	109	--	--	--	--	--	--	--	--	--	1,557
WILLOW	--	56	--	--	--	--	--	--	--	--	--	--	--	--	--	56
OTHER HARDWOODS	77	1,615	1,683	541	479	234	36	116	--	--	--	--	--	19	lo	4,811
TOTAL HARDWOODS	60,901	40,927	27,688	25,464	21,258	14,538	9.101	4,371	2,085	1,241	579	312	335	140	356	209,296
ALL SPECIES	425,922	209,144	127,155	104,834	73,935	54,802	36,038	24,724	16,895	11.376	8,205	5.841	4,472	3,222	8,481	1,115,045

-- = none found or less than 500 trees.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

TABLE 9-- NUMBER OF GROWING STOCK TREES ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

SPECIES	DIAMETER CLASS (INCHES AT BREAST HEIGHT)															
	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+	ALL CLASSES
	THOUSAND TREES															
SOFTWOODS:																
WESTERN HEMLOCK	157,798	73,253	42,857	34,224	23,721	18,322	10,757	9,311	5,989	3,991	2,677	2,006	1,351	873	2,586	389,716
DOUGLAS-FIR	69,325	41,459	33,491	29,113	18,731	14,724	11,257	7,506	6,180	4,121	3,740	2,379	1,845	1,432	2,913	248,215
WESTERN REDCEDAR	48,683	20,100	10,602	8,400	3,669	3,341	2,300	1,762	1,376	1,064	723	550	544	397	1,119	104.629
PACIFIC SILVER FIR	5,665	2,518	1,382	1.784	1.462	965	569	580	442	307	170	272	165	149	858	17,288
SITKA SPRUCE	8,004	5,568	4,354	2,427	1,785	1,199	876	661	409	391	154	210	86	95	321	26,540
LODGEPOLE PINE	--	1,358	1,781	990	1,573	666	688	292	141	--	--	--	--	--	--	7,490
GRAND FIR	2,025	120	121	371	344	209	35	--	108	71	59	45	--	36	6	3,550
MOUNTAIN HEMLOCK	492	257	67	127	81	44	78	28	29	39	27	11	13	9	49	1,351
ALASKA CEDAR	446	292	130	59	53	36	47	55	69	16	20	19	19	2	25	1,288
WESTERN WHITE PINE	917	1.116	926	367	266	87	--	40	--	8	--	2	13	--	--	3,741
SUBALPINE FIR	1,152	484	484	293	80	106	83	24	43	8	6	--	--	2	5	2,768
TOTAL SOFTWOODS	294,504	146.526	96,193	78,156	51,765	39,701	26,691	20,259	14,785	10,014	7,576	5,492	4,036	2,995	7,882	806,576
HARDWOODS:																
RED ALDER	51,162	26,681	18,225	17,921	16,377	12,234	7,348	3,502	1,445	685	276	99	50	16	85	156,105
BIGLEAF MAPLE	853	3,346	3,364	3,680	2,367	1,294	967	363	277	322	191	155	221	41	147	17,589
BLACK COTTONWOOD	--	--	345	43	68	180	--	116	80	139	64	46	62	64	36	1,243
OREGON ASH	--	829	1,192	536	398	105	504	52	105	68	29	--	--	--	--	3,817
BITTER CHERRY	2,030	1,295	365	875	398	--	55	--	--	--	--	--	--	--	--	5,020
PACIFIC MADRONE	--	588	319	47	339	112	48	32	28	--	--	12	--	--	--	1,526
OREGON WHITE OAK	--	600	150	318	380	109	--	--	--	--	--	--	--	--	--	1,557
TOTAL HARDWOODS	54,045	33,341	23,960	23.420	20,328	14,033	8,922	4,065	1,935	1,214	559	312	333	121	267	186,855
ALL SPECIES	348,549	179.867	120,154	101,576	72,092	53,734	35.613	24,324	16,721	11,228	8,136	5,805	4,369	3,115	8,149	993,430

-- = none found or less than 500 trees.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

TABLE 10--NET VOLUME OF GROWING STOCK ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

SPECIES	DIAMETER CLASS (INCHES AT BREAST HEIGHT)													
	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+	ALL CLASSES
	MILLION CUBIC FEET													
SOFTWOODS:														
WESTERN HEMLOCK	180	281	361	462	420	497	421	357	289	261	202	152	743	4,626
DOUGLAS-FIR	124	209	264	338	387	355	393	339	391	295	265	237	769	4,365
WESTERN REDCEDAR	30	44	40	56	53	57	57	52	46	38	46	40	254	813
PACIFIC SILVER FIR	18	12	16	21	21	25	29	26	16	37	24	26	295	565
SITKA SPRUCE	14	16	23	21	26	29	22	27	15	24	12	18	124	371
LODGEPOLE PINE	4	8	21	14	19	12	7	--	--	--	--	--	--	85
GRAND FIR	--	2	4	5	1	--	6	5	6	5	--	7	3	45
MOUNTAIN HEMLOCK	--	1	1	1	2	1	1	2	2	1	1	1	10	23
ALASKA CEDAR	--	--	--	--	1	2	3	1	1	1	2	--	6	17
WESTERN WHITE PINE	2	4	4	2	--	2	--	--	--	--	2	--	--	17
SUBALPINE FIR	3	2	1	1	2	--	1	--	--	--	--	--	1	12
TOTAL SOFTWOODS	374	580	736	922	931	979	940	810	767	662	554	482	2,204	10,942
HARDWOODS:														
RED ALDER	67	174	281	326	284	179	90	52	24	10	5	1	16	1,508
BIGLEAF MAPLE	12	29	31	31	34	18	19	22	16	14	28	4	24	283
BLACK COTTONWOOD	1	--	1	6	--	6	7	13	8	6	11	9	10	78
OREGON ASH	3	4	6	3	18	3	6	4	2	--	--	--	--	50
BITTER CHERRY	1	8	7	--	2	--	--	--	--	--	--	--	--	18
PACIFIC MADRONE	1	--	4	2	1	1	1	--	--	1	--	--	--	11
OREGON WHITE OAK	1	2	3	2	--	--	--	--	--	--	--	--	--	9
TOTAL HARDWOODS	87	218	333	369	339	207	123	90	49	30	44	15	51	1,957
ALL SPECIES	461	798	1,069	1,291	1.270	1,186	1.064	900	816	693	598	497	2,255	12,898

-- = none found or less than 500,000 cubic feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

TABLE 11--NET VOLUME OF SAWTIMBER ON TIMBERLAND BY SPECIES AND DIAMETER CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

SPECIES	DIAMETER CLASS (INCHES AT BREAST HEIGHT) 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+	ALL CLASSES
	MILLION BOARD FEET, SCRIBNER RULE											
SOFTWOODS:												
WESTERN HEMLOCK	1,024	1,644	1,713	2,175	1,944	1,728	1,441	1,341	1,067	827	4,368	19,272
DOUGLAS-FIR	701	1,158	1,514	1,518	1,776	1,599	1,932	1,489	1,353	1,234	4,313	18,587
WESTERN REDCEDAR	92	164	166	195	210	197	179	151	196	171	1,174	2,894
PACIFIC SILVER FIR	36	68	85	104	133	125	83	191	129	138	1,733	2,827
SITKA SPRUCE	61	63	90	112	89	115	74	118	62	98	731	1,611
LODGEPOLE PINE	54	43	63	49	28	--	--	--	--	--	--	238
GRAND FIR	10	17	3	--	28	21	28	27	--	38	16	189
MOUNTAIN HEMLOCK	1	1	6	3	4	9	8	4	7	4	55	103
ALASKA CEDAR	1	1	4	5	9	3	4	6	8	1	31	72
WESTERN WHITE PINE	12	7	--	9	--	2	--	1	8	--	--	39
SUBALPINE FIR	1	3	4	1	5	2	2	--	--	1	4	23
TOTAL SOFTWOODS	1,994	3,169	3,647	4,171	4,226	3,801	3,751	3,329	2,830	2,512	12,427	45,855
HARDWOODS:												
RED ALDER	5	1,229	1,337	905	473	276	127	52	24	7	80	4,516
BIGLEAF MAPLE	--	120	152	93	105	117	86	74	156	23	128	1,055
BLACK COTTONWOOD	--	24	--	29	39	77	47	36	65	55	63	434
OREGON ASH	--	14	85	14	28	18	9	--	--	--	--	168
BITTER CHERRY	--	--	8	--	--	--	--	--	--	--	--	8
PACIFIC MADRONE	1	6	5	4	5	--	--	4	--	--	--	26
OREGON WHITE OAK	--	5	--	--	--	--	--	--	--	--	--	5
TOTAL HARDWOODS	6	1,398	1,588	1,045	650	489	269	167	245	85	270	6,211
ALL SPECIES	2,000	4,566	5,235	5,216	4,876	4,290	4.020	3,495	3,075	2,597	12,696	52,067

-- = none found or less than 500,000 board feet

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

TABLE 12--NET VOLUME OF GROWING STOCK ON TIMBERLAND[a] BY SPECIES AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[b] [c]

SPECIES	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	MILLION CUBIC FEET				
SOFTWOODS:					
WESTERN HEMLOCK	999	1,351	1,837	440	4,626
DOUGLAS-FIR	786	1,296	1,862	421	4,365
WESTERN REDCEDAR	124	131	256	302	813
PACIFIC SILVER FIR	350	132	77	7	565
SITKA SPRUCE	45	50	189	87	371
LODGEPOLE PINE	--	--	35	50	85
GRAND FIR	1	--	11	32	45
MOUNTAIN HEMLOCK	23	--	--	--	23
ALASKA CEDAR	17	--	--	--	17
WESTERN WHITE PINE	2	7	--	8	17
SUBALPINE FIR	12	--	--	--	12
TOTAL SOFTWOODS	2,361	2,967	4,266	1,347	10,942
HARDWOODS:					
RED ALDER	15	376	769	348	1,508
BIGLEAF MAPLE	5	35	123	120	283
BLACK COTTONWOOD	--	2	45	31	78
OREGON ASH	--	17	21	12	50
BITTER CHERRY	--	10	8	--	18
PACIFIC MADRONE	1	1	--	9	11
OREGON WHITE OAK	--	--	--	9	9
TOTAL HARDWOODS	22	441	966	528	1,957
ALL SPECIES	2,382	3,408	5,232	1,875	12,898

-- = none found or less than 500,000 cubic feet

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[c] Includes trees 5 inches in d.b.h. and larger.

TABLE 13--NET VOLUME OF SAWTIMBER ON TIMBERLAND BY SPECIES AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a b c]

SPECIES	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	MILLION BOARD FEET, SCRIBNER RULE				
SOFTWOODS:					
WESTERN HEMLOCK	4,437	6,305	6,957	1,573	19,272
DOUGLAS-FIR	3,718	5,214	8,091	1,564	18,587
WESTERN REDCEDAR	581	497	829	987	2,894
PACIFIC SILVER FIR	1,776	682	350	18	2,827
SITKA SPRUCE	279	235	681	415	1,611
LODGEPOLE PINE	--	--	99	138	238
GRAND FIR	3	--	50	136	189
MOUNTAIN HEMLOCK	103	--	--	--	103
ALASKA CEDAR	72	--	--	--	72
WESTERN WHITE PINE	7	19	--	13	39
SUBALPINE FIR	23	--	--	--	23
TOTAL SOFTWOODS	11,001	12,952	17,057	4,845	45,855
HARDWOODS:					
RED ALDER	29	1,047	2,488	951	4,516
BIGLEAF MAPLE	17	171	367	499	1,055
BLACK COTTONWOOD	--	10	257	168	434
OREGON ASH	--	80	42	46	168
BITTER CHERRY	--	--	8	--	8
PACIFIC MADRONE	1	--	--	25	26
OREGON WHITE OAK	--	--	--	5	5
TOTAL HARDWOODS	47	1,308	3,162	1,694	6,211
ALL SPECIES	*11,048*	*14,261*	*20,220*	*6,538*	*52,067*

-- = none found or less than 500,000 board feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[C] Includes softwood trees 9.0 inches in d.b.h. and larger and hardwood trees 11.0 inches in d.b.h. and larger.

TABLE 14--NET VOLUME OF GROWING STOCK ON TIMBERLAND, BY FOREST TYPE AND STAND-SIZE CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

FOREST TYPE	STAND-SIZE CLASS				
	SAWTIMBER	POLETIMBER	SEEDLING-SAPLING	NONSTOCKED[d]	ALL CLASSES
	MILLION CUBIC FEET				
DOUGLAS-FIR:					
DOUGLAS-FIR	3,569	224	27	--	3,820
DOUGLAS-FIR/RED ALDER	297	--	--	--	297
DOUGLAS-FIR/OTHER HARDWOOD	100	--	--	--	100
TOTAL	3,966	224	27	--	4,216
FIR-SPRUCE:					
PACIFIC SILVER FIR	445	18	15	--	478
SUBALPINE FIR	4	7	--	--	12
MOUNTAIN HEMLOCK	12	--	--	--	12
TOTAL	461	25	15	--	501
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	4,463	173	88	--	4,724
WESTERN HEMLOCK/RED ALDER	302	28	1	--	331
SITKA SPRUCE	56	--	--	--	56
TOTAL	4.821	201	***89***	--	**5,111**
LODGEPOLE PINE	76	--	--	--	76
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	346	12	5	--	363
WESTERN REDCEDAR/RED ALDER	123	--	--	--	123
WESTERN REDCEDAR/OTHER HARDWOOD	115	--	--	--	115
ALASKA CEDAR	15	--	--	--	15
UNCLASSIFIED SOFTWOOD TYPE~	--	3	--	--	3
TOTAL	598	15	5	--	618
ALL SOFTWOOD TYPES	9,921	466	135	--	10,522
WESTERN HARDWOOD TYPES:					
RED ALDER	661	402	22	--	1,085
RED ALDER/CONIFER	762	67	16	--	845
BIGLEAF MAPLE	120	31	--	--	151
BIGLEAF MAPLE/CONIFER	73	46	2	--	121
BLACK COTTONWOOD	81	--	--	--	81
OREGON ASH	49	--	4	--	53
PACIFIC MADRONE/CONIFER	17	--	--	--	17
WILLOW	--	11	--	--	11
UNCLASSIFIED HARDWOOD TYPE[c]	3	--	--	--	3
TOTAL	1,765	557	44	--	2,366
NONSTOCKED[d]	--	--	--	10	10
ALL TYPES	11,686	1,022	179	10	12,898

-- = none found or less than 500,000 cubic feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Information on forest type unavailable.

[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 15--NET VOLUME OF SAWTIMBER ON TIMBERLAND, BY FOREST TYPE AND STAND-SIZE CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a]

FOREST TYPE	STAND-SIZE CLASS				
	SAWTIMBER	POLETIMBER	SEEDLING-SAPLING	NONSTOCKED[d]	ALL CLASSES
	MILLION BOARD FEET, SCRIBNER RULE				
DOUGLAS-FIR:					
DOUGLAS-FIR	15,129	270	72	--	15,471
DOUGLAS-FIR/RED ALDER	1,146	--	--	--	1,146
DOUGLAS-FIR/OTHER HARDWOOD	422	--	--	--	422
TOTAL	16,697	270	72	--	17,039
FIR-SPRUCE:					
PACIFIC SILVER FIR	2,385	--	82	--	2,467
SUBALPINE FIR	23	15	--	--	38
MOUNTAIN HEMLOCK	49	--	--	--	49
TOTAL	2.457	15	82	--	2.554
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	19,895	183	242	--	20,321
WESTERN HEMLOCK/RED ALDER	1,162	39	--	--	1,201
SITKA SPRUCE	258	--	--	--	258
TOTAL	21,316	222	242	--	21,780
LODGEPOLE PINE	187	--	--	--	187
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	1,309	21	--	--	1,329
WESTERN REDCEDAR/RED ALDER	525	--	--	--	525
WESTERN REDCEDAR/OTHER HARDWOOD	422	--	--	--	422
ALASKA-CEDAR	65	--	--	--	65
UNCLASSIFIED SOFTWOOD TYPE~	--	--	--	--	--
TOTAL	2,321	21	--	--	2,341
ALL SOFTWOOD TYPES	42,977	528	397	--	43,902
WESTERN HARDWOOD TYPES:					
RED ALDER	2,488	864	73	--	3,425
RED ALDER/CONIFER	2,981	150	50	--	3,180
BIGLEAF MAPLE	418	89	--	--	507
BIGLEAF MAPLE/CONIFER	256	150	3	--	409
BLACK COTTONWOOD	342	--	--	--	342
OREGON ASH	178	--	14	--	192
PACIFIC MADRONE/CONIFER	63	--	--	--	63
WILLOW	--	15	--	--	15
UNCLASSIFIED HARDWOOD TYPE[c]	--	--	--	--	--
TOTAL	6,726	1,267	140	--	8,133
NONSTOCKED[d]	--	--	--	32	32
ALL TYPES	49,704	1,795	536	32	52,067

-- = none found or less than 500,000 board feet.

[a]Totals may be off because of rounding.

[b]Subject to sampling error.

'Information on forest type unavailable.

[d]Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 16--NET VOLUME OF GROWING STOCK ON TIMBERLAND, BY FOREST TYPE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	MILLION CUBIC FEET				
DOUGLAS-FIR:					
DOUGLAS-FIR	748	1,045	1,679	348	3,820
DOUGLAS-FIR/RED ALDER	--	125	127	44	297
DOUGLAS-FIR/OTHER HARDWOOD	--	--	100	--	100
TOTAL	748	1,170	1,907	392	4,216
FIR-SPRUCE:					
PACIFIC SILVER FIR	350	128	--	--	478
SUBALPINE FIR	12	--	--	--	12
MOUNTAIN HEMLOCK	12	--	--	--	12
TOTAL	373	128	--	--	501
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	1,184	1,377	1,P76	387	4,724
WESTERN HEMLOCK/RED ALDER	--	51	280	--	331
SITKA SPRUCE	17	--	39	--	56
TOTAL	1,202	1,428	2,095	387	5,111
LODGEPOLE PINE	--	--	37	38	76
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	26	61	60	216	363
WESTERN REDCEDAR/RED ALDER	--	--	--	123	123
WESTERN REDCEDAR/OTHER HARDWOOD	--	--	57	58	115
ALASKA CEDAR	15	--	--	--	15
UNCLASSIFIED SOFTWOOD TYPE[c]	3	--	--	--	3
TOTAL	44	61	116	397	618
ALL SOFTWOOD TYPES	2,366	2,787	4,155	,214	10,522
WESTERN HARDWOOD TYPES:					
RED ALDER	11	193	534	347	1,085
RED ALDER/CONIFER	--	428	375	42	845
BIGLEAF MAPLE	3	--	31	117	151
BIGLEAF MAPLE/CONIFER	--	--	55	65	121
BLACK COTTONWOOD	--	--	42	39	81
OREGON ASH	--	--	40	13	53
PACIFIC MADRONE/CONIFER	--	--	--	17	17
WILLOW	--	--	--	11	11
UNCLASSIFIED HARDWOOD TYPE[c]	3	--	--	--	3
TOTAL	17	621	1,077	651	2,366
NONSTOCKED[d]	--	--	--	10	10
ALL TYPES	2,382	3,408	5,232	1,875	12,898

-- = none found or less than 500,000 cubic feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Information on forest type unavailable.

[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 17--NET VOLUME OF SAWTIMBER ON TIMBERLAND, BY FOREST TYPE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a b]

FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	MILLION BOARD FEET, SCRIBNER RULE				
DOUGLAS-FIR:					
DOUGLAS-FIR	3,143	3,924	7,233	1,171	15,471
DOUGLAS-FIR/RED ALDER	--	411	590	145	1,146
DOUGLAS-FIR/OTHER HARDWOOD	--	--	422	--	422
TOTAL	3,143	4,335	8,245	1,316	17,039
FIR-SPRUCE:					
PACIFIC SILVER FIR	1,805	662	--	--	2,467
SUBALPINE FIR	38	--	--	--	38
MOUNTAIN HEMLOCK	49	--	--	--	49
TOTAL	1,891	662	--	--	2,554
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	5,664	6,590	6,567	1,500	20,321
WESTERN HEMLOCK/RED ALDER	--	200	1,000	--	1,201
SITKA SPRUCE	114	--	144	--	258
TOTAL	5,778	6,790	7,712	1,500	21,780
LODGEPOLE PINE	--	--	97	90	187
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	130	263	209	728	1,329
WESTERN REDCEDAR/RED ALDER	--	--	--	525	525
WESTERN REDCEDAR/OTHER HARDWOOD	--	--	239	183	422
ALASKA CEDAR	65	--	--	--	65
UNCLASSIFIED SOFTWOOD TYPE~	--	--	--	--	--
TOTAL	195	263	448	1,435	2,341
ALL SOFTWOOD TYPES	11,008	12,050	16,502	4,342	43,902
WESTERN HARDWOOD TYPES:					
RED ALDER	30	383	1.911	1.101	3,425
RED ALDER/CONIFER	--	1,827	1,211	142	3,180
BIGLEAF MAPLE	10	--	89	408	507
BIGLEAF MAPLE/CONIFER	--	--	176	233	409
BLACK COTTONWOOD	--	--	189	153	342
OREGON ASH	--	--	143	49	192
PACIFIC MADRONE/CONIFER	--	--	--	63	63
WILLOW	--	--	--	15	15
UNCLASSIFIED HARDWOOD TYPE[c]	--	--	--	--	--
TOTAL	*40*	2,210	3,718	2,165	8,133
NONSTOCKED[d]	--	--	--	32	32
ALL TYPES	11,048	14,261	20,220	6,538	52,067

-- = none found or less than 500,000 board feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Information on forest type unavailable.

[d] Nonstocked areas are less than 10 percent stocked with live trees Recent clearcuts scheduled for planting are included.

TABLE 18--NET VOLUME OF TIMBER ON TIMBERLAND BY CLASS OF TIMBER AND SPECIES GROUP, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

CLASS OF TIMBER	SPECIES GROUP		
	SOFTWOODS	HARDWOODS	ALL SPECIES
	MILLION CUBIC FEET		
SAWTIMBER TREES:			
SAW-LOG PORTION'	7,590	1,138	8,729
UPPER-STEM PORTION[c]	245	167	412
TOTAL SAWTIMBER[d]	9,987	1,318	11,305
POLETIMBER TREES	954	639	1,593
ALL GROWING-STOCK TREES	10,942	1,957	12,898
SOUND CULL TREES	27	42	69
ROTTEN CULL TREES	80	--	81
TOTAL CULL TREES	108	42	149
SALVABLE DEAD TREES	152	3	155
ALL TIMBER	11,202	2,002	13,202

-- = none found or less than 500,000 cubic feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[c] Volume distribution by saw-log portion and upper-stem portion is unavailable for National Forest ownership.

[d] Includes total volume for National Forest ownership.

TABLE 19--CURRENT NET ANNUAL GROWTH OF GROWING STOCK ON TIMBERLAND BY FOREST TYPE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, 1989[a] [b]

FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	THOUSAND CUBIC FEET[c]				
DOUGLAS-FIR:					
DOUGLAS-FIR	10,064	41,095	62,827	13,412	127,398
DOUGLAS-FIR/RED ALDER	--	5,731	3,681	1,689	11,102
DOUGLAS-FIR/OTHER HARDWOOD	--	--	2,793	--	2,793
TOTAL	10,064	46,825	69,300	15,101	141,291
FIR-SPRUCE:					
PACIFIC SILVER FIR	-823	1,058	--	--	235
SUBALPINE FIR	145	--	--	--	145
MOUNTAIN HEMLOCK	95	--	--	--	95
TOTAL	-583	1,058	--	--	475
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	2,992	30,651	77,089	17,898	128,629
WESTERN HEMLOCK/RED ALDER	--	1,433	11,890	--	13,322
SITKA SPRUCE	85	--	2,379	--	2,464
TOTAL	3,076	32,082	91,359	17,898	144,415
LODGEPOLE PINE	--	--	352	1,149	1,501
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	175	430	2,361	4,032	6,997
WESTERN REDCEDAR/RED ALDER	--	--	--	3,719	3,719
WESTERN REDCEDAR/OTHER HARDWOOD	--	--	1,902	2,885	4,788
ALASKA CEDAR	191	--	--	--	191
UNCLASSIFIED SOFTWOOD TYPE[d]	1	--	--	--	1
TOTAL	367	430	4,263	10,636	15,695
ALL SOFTWOOD TYPES	12,924	80,396	165,273	44,785	303,378
WESTERN HARDWOOD TYPES:					
RED ALDER	519	5,980	15,698	15,338	37,536
RED ALDER/CONIFER	--	13,082	14,900	1,226	29,209
BIGLEAF MAPLE	66	--	1,506	2,162	3,734
BIGLEAF MAPLE/CONIFER	--	--	1,870	1,514	3,385
BLACK COTTONWOOD	--	--	2,130	2,570	4,701
OREGON ASH	--	--	1,132	351	1,482
PACIFIC MADRONE/CONIFER	--	--	--	450	450
WILLOW	--	--	--	352	352
UNCLASSIFIED HARDWOOD TYPE[d]	1	--	--	--	1
TOTAL	587	19,063	37,235	23,964	80,849
NONSTOCKED[e]	--	--	--	325	325
ALL TYPES	13,510	99,458	202,508	69,074	384,549

-- - none found or less than 500 cubic feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Negative net annual growth is the result of annual mortality exceeding gross annual growth.

[d] Information on forest type unavailable.

[e] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 20--CURRENT NET ANNUAL GROWTH OF SAWTIMBER ON TIMBERLAND BY FOREST TYPE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, 1989[a] [b]

FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	THOUSAND BOARD FEET, SCRIBNER RULE[c]				
DOUGLAS-FIR:					
DOUGLAS-FIR	44,457	203,866	308,006	63,107	619,435
DOUGLAS-FIR/RED ALDER	--	26,688	27,363	6,380	60,432
DOUGLAS-FIR/OTHER HARDWOOD	--	--	23,229	--	23,229
TOTAL	44,457	230,554	358,600	69,487	703,098
FIR-SPRUCE:					
PACIFIC SILVER FIR	-1,725	6,695	--	--	4,970
SUBALPINE FIR	239	--	--	--	239
MOUNTAIN HEMLOCK	435	--	--	--	435
TOTAL	-1,051	6,695	--	--	5,644
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	-3,289	187,100	331,130	77,389	592,330
WESTERN HEMLOCK/RED ALDER	--	5,134	43,433	--	48,567
SITKA SPRUCE	575	--	12,070	--	12,645
TOTAL	-2,714	192,234	386,633	77,389	653,542
LODGEPOLE PINE	--	--	1,499	3,605	5,104
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	1,151	3,140	8,219	15,630	28,139
WESTERN REDCEDAR/RED ALDER	--	--	--	17,477	17,477
WESTERN REDCEDAR/OTHER HARDWOOD	--	--	9,177	10,999	20,176
ALASKA CEDAR	905	--	--	--	905
UNCLASSIFIED SOFTWOOD TYPE~	--	--	--	--	--
TOTAL	2,055	3,140	17,396	44,105	66,696
ALL SOFTWOOD TYPES	42,748	432,622	764,127	194,586	1,434,083
WESTERN HARDWOOD TYPES:					
RED ALDER	2,205	41,006	115,402	56,641	215,254
RED ALDER/CONIFER	--	71,055	69,435	12,692	153,181
BIGLEAF MAPLE	284	--	5,859	11,001	17,144
BIGLEAF MAPLE/CONIFER	--	--	6,500	6,760	13,260
BLACK COTTONWOOD	--	--	11,328	12,061	23,389
OREGON ASH	--	--	3,510	1,025	4,535
PACIFIC MADRONE/CONIFER			--	2,024	2,024
WILLOW			--	978	978
UNCLASSIFIED HARDWOOD TYPE[d]			--	--	--
TOTAL	2,489	112,060	212,034	103,182	429,765
NONSTOCKED[e]	--	--	--	1,158	1,158
ALL TYPES	45,236	544,682	976,161	298,926	1,865,006

-- = none found or less than 500 board feet

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Negative net annual growth is the result of annual mortality exceeding gross annual growth

[d] Information on forest type unavailable.

[e] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 21--AVERAGE ANNUAL MORTALITY OF GROWING STOCK ON TIMBERLAND BY FOREST TYPE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, 1989[a,b]

FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	THOUSAND CUBIC FEET				
DOUQLAS-FIR:					
DOUGLAS-FIR	929	3,032	6,263	738	10,963
DOUGLAS-FIR/RED ALDER	--	139	108	240	486
DOUGLAS-FIR/OTHER HARDWOOD	--	--	402	--	402
TOTAL	929	3,171	6,774	978	11,851
FIR-SPRUCE:					
PACIFIC SILVER FIR	3,605	330	--	--	3,935
SUBALPINE FIR	--	--	--	--	--
MOUNTAIN HEMLOCK	--	--	--	--	--
TOTAL	3,605	330	--	--	3,935
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	9,876	6,787	7,294	643	24,600
WESTERN HEMLOCK/RED ALDER	--	790	1,062	--	1,852
SITKA SPRUCE	--	--	91	--	91
TOTAL	9,876	7.578	8,446	643	26,543
LODGEPOLE PINE	--	--	48	232	280
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	59	684	179	1,497	2,419
WESTERN REDCEDAR/RED ALDER	--	--	--	543	543
WESTERN REDCEDAR/OTHER HARDWOOD	--	--	--	315	315
ALASKA CEDAR	--	--	--	--	--
UNCLASSIFIED SOFTWOOD TYPE~	--	--	--	--	--
TOTAL	59	684	179	2,355	3,276
ALL SOFTWOOD TYPES	14,469	11,762	15,448	4,207	45,886
WESTERN HARDWOOD TYPES:					
RED ALDER	--	677	1,591	2,135	4,403
RED ALDER/CONIFER	--	1,823	3,430	317	5,570
BIGLEAF MAPLE	--	--	52	1,810	1,862
BIGLEAF MAPLE/CONIFER	--	--	92	824	916
BLACK COTTONWOOD	--	--	177	--	177
OREGON ASH	--	--	90	132	223
PACIFIC MADRONE/CONIFER	--	--	--	--	--
WILLOW	--	--	--	88	88
UNCLASSIFIED HARDWOOD TYPE[c]	--	--	--	--	--
TOTAL	--	2,500	5,434	5,306	13,240
NONSTOCKED[d]	--	--	--	--	--
ALL TYPES	14,469	14,263	20,882	9,513	59,126

-- = none found or less than 500 cubic feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Information on forest type unavailable.

[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 22--AVERAGE ANNUAL MORTALITY OF SAWTIMBER ON TIMBERLAND BY FOREST TYPE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, 1989[a] [b]

FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	THOUSAND BOARD FEET, SCRIBNER RULE				
DOUGLAS-FIR:					
DOUGLAS-FIR	5,220	6,759	14,778	1,548	28,305
DOUGLAS-FIR/RED ALDER	--	--	--	751	751
DOUGLAS-FIR/OTHER HARDWOOD	--	--	1,547	--	1,547
TOTAL	5,220	6,759	16,324	2,299	30,603
FIR-SPRUCE:					
PACIFIC SILVER FIR	15,807	1,311	--	--	17,118
SUBALPINE FIR	--	--	--	--	--
MOUNTAIN HEMLOCK	--	--	--	--	--
TOTAL	15,807	1,311	--	--	17.118
HEMLOCK-SITKA SPRUCE:					
WESTERN HEMLOCK	69,845	18,354	20,175	2,755	111,129
WESTERN HEMLOCK/RED ALDER	--	4,087	3,436	--	7,523
SITKA SPRUCE	--	--	264	--	264
TOTAL	69,845	22,441	23,875	2,755	118,916
LODGEPOLE PINE	--	--	--	186	186
OTHER SOFTWOOD TYPES:					
WESTERN REDCEDAR	202	2,581	902	5,202	8,888
WESTERN REDCEDAR/RED ALDER	--	--	--	2,388	2,388
WESTERN REDCEDAR/OTHER HARDWOOD	--	--	--	534	534
ALASKA CEDAR	--	--	--	--	--
UNCLASSIFIED SOFTWOOD TYPE~	--	--	--	--	--
TOTAL	202	2,581	902	8,125	11,810
ALL SOFTWOOD TYPES	91,074	33,092	41,101	13,365	178.632
WESTERN HARDWOOD TYPES:					
RED ALDER	--	212	--	6,060	6,272
RED ALDER/CONIFER	--	6,222	6,101	852	13,175
BIGLEAF MAPLE	--	--	--	4,746	4,746
BIGLEAF MAPLE/CONIFER	--	--	--	2,172	2,172
BLACK COTTONWOOD	--	--	972	--	972
OREGON ASH	--	--	--	326	326
PACIFIC MADRONE/CONIFER				--	--
WILLOW				--	--
UNCLASSIFIED HARDWOOD TYPE[c]	--	--	--	--	--
TOTAL	--	6,435	7,073	14,155	27,662
NONSTOCKED[d]	--	--	--	--	--
ALL TYPES	91,074	39,527	48,174	27,520	206,294

-- = none found or less than 500 board feet

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[c] Information on forest type unavailable.

[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 23--AREA BY COUNTY AND LAND CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a b]

COUNTY	FOREST LAND					NONFOREST LAND[c]	ALL LAND[d]
	TIMBERLAND	RESERVED TIMBERLAND	OTHER FOREST	RESERVED OTHER FOREST	TOTAL,		
	THOUSAND HECTARES						
CLALLAM	274	74	3	42	393	52	446
GRAYS HARBOR	437	9	6	1	453	46	498
JEFFERSON	209	139	3	62	412	59	472
MASON	187	12	4	7	210	38	248
THURSTON	124	--	3	--	128	62	189
ALL COUNTIES	1,231	234	19	111	1,597	257	1,853

-- - none found or less than 500 hectares.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

'Includes cropland, pasture and range, swampland, industrial and urban areas, powerline clearings, railroads, and all improved roads and highways; and water as classified by Forest Inventory and Analysis standards but defined by the Bureau of the Census as land.

[d] Source: U.S. Department of Commerce 1983.

TABLE 24--AREA OF RESERVED TIMBERLAND AND OTHER FOREST LAND BY LAND CLASS, FOREST TYPE, AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

LAND CLASS AND FOREST TYPE	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	THOUSAND ACRES				
RESERVED TIMBERLAND:					
DOUGLAS-FIR	28	170	--	--	198
FIR-SPRUCE	19	108	--	--	127
HEMLOCK-SITKA SPRUCE	7	237	--	--	244
OTHER SOFTWOOD TYPES	--	2	--	--	2
WESTERN HARDWOOD TYPES	--	5	--	--	5
TOTAL	55	524	--	--	579
RESERVED OTHER FOREST:					
DOUGLAS-FIR	10	--	--	--	10
FIR-SPRUCE	4	13	--	--	17
HEMLOCK-SITKA SPRUCE	2	--	--	--	2
UNCLASSIFIED[c]	--	246	--	--	246
TOTAL	15	260	--	--	274
ALL RESERVED	70	784	--	--	854
UNRESERVED OTHER FOREST:					
DOUGLAS-FIR	4	--	--	--	4
FIR-SPRUCE	5	--	--	--	5
HEMLOCK-SITKA SPRUCE	1	--	--	6	7
WESTERN HARDWOOD TYPES	--	8	--	25	33
ALL UNRESERVED	10	8	--	31	48

-- = none found or less than 500 acres.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[c] Information on forest type unavailable.

TABLE 25--AREA OF TIMBERLAND BY OWNER AND STAND-SIZE CLASS, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990.[a] [b]

OWNER	STAND-SIZE CLASS				
	SAWTIMBER	POLETIMBER	SEEDLING-SAPLING	NONSTOCKED[c]	ALL CLASSES
	THOUSAND HECTARES				
NATIONAL FOREST	105	33	65	--	202
OTHER PUBLIC	148	21	68	6	244
FOREST INDUSTRY	287	65	161	8	522
OTHER PRIVATE	133	43	70	16	262
ALL OWNERS	673	163	364	32	1,231

-- = none found or less than 500 hectares.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

[c] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

TABLE 26--AREA, NET VOLUME OF GROWING STOCK[a], AND NET VOLUME OF SAWTIMBER[b] ON TIMBERLAND BY STAND AGE AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[c d]

STAND AGE	NATIONAL FOREST			OTHER PUBLIC			FOREST INDUSTRY		
	AREA	GROWING STOCK VOLUME	SAWTIMBER VOLUME SCRIBNER RULE	AREA	GROWING STOCK VOLUME	SAWTIMBER VOLUME SCRIBNER RULE	AREA	GROWING STOCK VOLUME	SAWTIMBER VOLUME SCRIBNER RULE
	THOUSAND ACRES	THOUSAND CUBIC FEET	THOUSAND BOARD FEET	THOUSAND ACRES	THOUSAND CUBIC FEET	THOUSAND BOARD FEET	THOUSAND ACRES	THOUSAND CUBIC FEET	THOUSAND BOARD FEET
EVEN-AGED									
0-9	52	24,058	125,809	54	1,229	2,556	155	--	--
10-19	53	9,164	37,289	94	7,736	--	216	87,453	117,478
20-29	52	14,009	31,956	25	84,063	197,454	115	263,528	541,242
30-39	60	140,133	218,604	43	163,812	458,887	73	285,157	2,836,753
40-49	26	106,676	345,410	68	456,233	1,711,020	123	745,146	
50-59	27	144,752	457,105	104	729,418	2,879,541	131	959,202	3,976,001
60-69	12	51,808	123,625	49	543,909	2,587,171	102	987,785	4,370,024
70-79	6	39,069	161,353	15	254,734	1,311,952	21	186,473	923,209
80-89	2	7,876	18,262	16	200,894	972,749	7	88,258	410,869
90-99	1	9,595	43,011	--	--	--	7	114,560	613,943
100-109	2	3,635	2,677	--	--	--	--	--	--
110-119	2	25,827	110,287	--	--	--	--	--	--
120-129	1	18,607	101,143	--	--	--	7	98,290	529,928
130-139	--	--	--	--	--	--	--	--	
140-149	--	--	--	--	--	--	--	--	--
150-159	1	9,200	44,486	--	--	--	--	--	--
160-169	--	--	--	--	--	--	--	--	
170-179	--	--	--	5	71,583	371,115	--	--	
180-189	--	--	--	--	--	--	--	--	--
190-199	1	5,230	23,812	--	--	--	--	--	--
200-299	36	340,291	1,634,215	11	127,877	662,275	--	--	--
300+	167	1,432,463	7,569,116	--	--	--	--	--	--
UNEVEN-AGED:									
<100	--	--	--	32	229,540	1,017,326	64	510,156	2,139,369
100+	--	--	--	28	344,085	1,705,493	7	37,239	96,509
NO MANAGEABLE STAND[e]			--	61	192,760	383,106	262	869,126	3,068,609
ALL AGES	500	2,382,394	11,048,161	604	3,407,873	14,260,645	1,289	5,232,373	20,219,507

TABLE 26--(CONTINUED)

STAND AGE	OTHER PRIVATE AREA	OTHER PRIVATE GROWING STOCK VOLUME	OTHER PRIVATE SAWTIMBER VOLUME SCRIBNER RULE	ALL OWNERS AREA	ALL OWNERS GROWING STOCK VOLUME	ALL OWNERS SAWTIMBER VOLUME SCRIBNER RULE
	THOUSAND ACRES	THOUSAND CUBIC FEET	THOUSAND BOARD FEET	THOUSAND ACRES	THOUSAND CUBIC FEET	THOUSAND BOARD FEET
EVEN-AGED:						
0-9	41	186	--	302	25,473	128,365
10-19	83	14,458	10,061	446	118,811	164,828
20-29	12	11,914	9,749	204	373,515	780,401
30-39	19	49,834	67,561	194	638,936	1,580,825
40-49	33	180,532	629,304	250	1,488,587	5,282,287
50-59	32	150,113	495,735	293	1,983,484	7,808,382
60-69	34	245,942	982,706	197	1,829,444	8,063,526
70-79	12	48,496	184,359	54	528,772	2,580,873
80-89	21	111,913	433,578	46	408,941	1,835,458
90-99	6	107,847	618,420	14	232,002	1,275,374
100-109	--	--	--	2	3,635	2,677
110-119	--	--	--	2	25,827	110,287
120-129	--	--	--	8	116,897	631,071
130-139	--	--	--	--	--	--
140-149	--	--	--	--	--	--
150-159	--	--	--	1	9,200	44,486
160-169	--	--	--	--	--	--
170-179	--	--	--	5	71,583	371,115
180-189	--	--	--	--	--	--
190-199	--	--	--	1	5,230	23,812
200-299	14	57,941	159,743	61	526,109	2,456,232
300+	4	14,818	40,843	171	1,447,282	7,609,960
UNEVEN-AGED:						
<100	57	286,696	1,037,230	152	1,026,392	4,193,926
100+	6	45,172	156,014	41	426,496	1,958,015
NO MANAGEABLE STAND[e]	276	549,314	1,713,136	598	1,611,201	5,164,851
ALL AGES	648	1,875,177	6,538,440	3,041	12,897,817	52,066,753

-- - none found or less than 500 acres, 500 cubic feet, or 500 board feet.

[a]Includes trees 5 inches in d.b.h. and larger.

[b]Includes conifer trees 9 inches in d.b.h. and larger and hardwood trees 11 inches in d.b.h. and larger.

'Totals may be off because of rounding.

[d]Subject to sampling error.

[e]Lacks 25 percent conifer stocking on 3/5ths of sample points.

TABLE 27--NET VOLUME OF GROWING STOCK AND SAWTIMBER ON TIMBERLAND BY COUNTY AND OWNER, OLYMPIC PENINSULA, WASHINGTON, JANUARY 1, 1990[a] [b]

COUNTY	OWNER				
	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	MILLION CUBIC FEET				
GROWING STOCK:					
CLALLAM	907	893	1,140	339	3,280
GRAYS HARBOR	491	964	2,278	662	4,395
JEFFERSON	574	741	543	206	2,064
MASON	410	316	916	270	1,912
THURSTON	..	494	356	398	1,247
ALL COUNTIES	2,382	3,408	5,232	1,875	12,898
	MILLION BOARD FEET. SCRIBNER RULE				
SAWTIMBER:					
CLALLAM	4,130	3,681	4,451	1,219	13,481
GRAYS HARBOR	2,368	4,161	8,833	2,147	17,510
JEFFERSON	2,686	3,153	2,082	744	8,664
MASON	1,865	1,203	3,535	980	7,583
THURSTON	--	2,062	1,319	1,449	4,829
ALL COUNTIES	11,048	14,261	20,220	6,538	52,067
	MILLION CUBIC METERS				
GROWING STOCK:					
CLALLAM	26	25	32	10	93
GRAYS HARBOR	14	27	65	19	124
JEFFERSON	16	21	15	6	58
MASON	12	9	26	8	54
THURSTON	--	14	10	11	35
ALL COUNTIES	67	96	148	53	364

-- = none found or less than 500,000 cubic feet, 500,000 cubic meters or 500,000 board feet.

[a] Totals may be off because of rounding.

[b] Subject to sampling error.

TABLE 28--CURRENT NET ANNUAL GROWTH, AVERAGE ANNUAL MORTALITY, AND AVERAGE ANNUAL REMOVALS OF GROWING STOCK ON TIMBERLAND BY SPECIES AND OWNER, OLYMPIC PENINSULA, WASHINGTON, 1989[a b]

SPECIES	NATIONAL FOREST		OTHER PUBLIC			FOREST INDUSTRY			OTHER PRIVATE		
	CURRENT NET ANNUAL GROWTH	AVERAGE ANNUAL MORTALITY	CURRENT NET ANNUAL GROWTH	AVERAGE ANNUAL MORTALITY	AVERAGE ANNUAL REMOVALS	CURRENT NET ANNUAL GROWTH	AVERAGE ANNUAL MORTALITY	AVERAGE ANNUAL REMOVALS	CURRENT NET ANNUAL GROWTH	AVERAGE ANNUAL MORTALITY	AVERAGE ANNUAL REMOVALS
	THOUSAND CUBIC FEET										
SOFTWOODS:											
WESTERN HEMLOCK	3,258	8,520	33,532	6,054	47,334	77,874	5,944	168,361	18,033	1,413	40,454
DOUGLAS-FIR	8,058	1,203	48,754	3,996	24,078	72,372	5,293	51,811	16,185	1,397	23,880
WESTERN REDCEDAR	344	855	1,834	327	6,689	9,459	725	5,961	10,635	1,021	3,159
PACIFIC SILVER FIR	692	3,208	1,705	398	4,661	2,514	84	1,178	200	105	--
SITKA SPRUCE	279	117	1,862	109	781	12,114	408	26,350	3,837	95	179
LODGEPOLE PINE	--	--	--	--	--	288	380	--	1,160	104	--
GRAND FIR	35	16	--	--	--	996	--	--	1,812	--	446
MOUNTAIN HEMLOCK	30	140	--	--	--	--	--	--	--	--	--
ALASKA CEDAR	88	113	--	--	--	--	--	249	--	--	--
WESTERN WHITE PINE	10	6	297	107	--	--	--	--	-619	1,052	--
SUBALPINE FIR	56	87	--	--	--	--	--	--	--	--	--
TOTAL SOFTWOODS	12,853	14,264	87,984	10,991	83,543	175,618	12,833	253,909	51,242	5,187	68,118
HARDWOODS:											
RED ALDER	527	191	9,539	3,092	4,845	21,135	6,809	35,010	12,513	3,147	16,778
BIGLEAF MAPLE	108	13	1,236	--	352	3,677	598	3,863	2,896	815	1,221
BLACK COTTONWOOD	--	--	64	--	--	1,379	177	--	1,882	--	253
OREGON ASH	--	--	398	--	--	752	90	321	381	75	124
BITTER CHERRY	--	--	209	179	--	-53	374	127	-53	188	--
PACIFIC MADRONE	24	--	29	--	--	--	--	117	96	102	163
OREGON WHITE OAK	--	--	--	--	--	--	--	--	118	--	--
TOTAL HARDWOODS	658	205	11,474	3,272	5,197	26,891	8,048	39,438	17,831	4,327	18,540
ALL SPECIES	13,510	14,469	99,458	14,263	88,741	202,508	20,882	293,347	69,074	9,513	86,658

TABLE 28--(CONTINUED)

SPECIES	ALL OWNERS[d] CURRENT NET ANNUAL GROWTH	ALL OWNERS[d] AVERAGE ANNUAL MORTALITY
	THOUSAND CUBIC FEET[e]	
SOFTWOODS:		
WESTERN HEMLOCK	132,697	21,931
DOUGLAS-FIR	145,369	11,889
WESTERN REDCEDAR	22,272	2,928
PACIFIC SILVER FIR	5,111	3,795
SITKA SPRUCE	18,093	729
LODGEPOLE PINE	1,448	484
GRAND FIR	2,843	16
MOUNTAIN HEMLOCK	30	140
ALASKA CEDAR	88	113
WESTERN WHITE PINE	**-311**	1,164
SUBALPINE FIR	56	87
TOTAL SOFTWOODS	327,696	43,275
HARDWOODS:		
RED ALDER	43,713	13,240
BIGLEAF MAPLE	7,917	1,426
BLACK COTTONWOOD	3,325	177
OREGON ASH	1,531	165
BITTER CHERRY	102	741
PACIFIC MADRONE	149	102
OREGON WHITE OAK	118	--
TOTAL HARDWOODS	56,855	15,851
ALL SPECIES	384,549	59,126

-- = none found or less than 500 cubic feet.

[a]Totals may be off because of rounding.

[b]Subject to sampling error.

'Removals not available for National Forest.

[d]Removals not available for all ownerships.

[e]Negative net annual growth is the result of annual mortality exceeding gross annual growth.

TABLE 29--CURRENT NET ANNUAL GROWTH, AVERAGE ANNUAL MORTALITY, AND AVERAGE ANNUAL REMOVALS OF SAWTIMBER ON TIMBERLAND BY SPECIES AND OWNER, OLYMPIC PENINSULA, WASHINGTON, 1989

SPECIES	NATIONAL FOREST		OTHER PUBLIC			FOREST INDUSTRY			OTHER PRIVATE		
	CURRENT NETANNUAL GROWTH	AVERAGE ANNUAL MORTALITY	CURRENT NET ANNUAL GROWTH	AVERAGE ANNUAL MORTALITY	AVERAGE ANNUAL REMOVALS	CURRENT NET ANNUAL, GROWTH	AVERAGE ANNUAL MORTALITY	AVERAGE ANNUAL REMOVALS	CURRENT NETANNUAL GROWTH	AVERAGE ANNUAL MORTALITY	AVERAGE ANNUAL REMOVALS
	THOUSAND BOARD FEET, SCRIBNER RULE~										
SOFTWOODS:											
WESTERN HEMLOCK	843	56,691	194,821	18,373	240,771	348,199	17,430	820,783	73,230	4,049	179,640
DOUGLAS-FIR	39,072	7,366	249,874	10,781	129,090	346,522	13,602	261,333	74,307	4,696	103,786
WESTERN REDCEDAR	-570	5,396	8,016	1,397	30,450	38,177	1,891	24,784	39,488	2,582	9,176
PACIFIC SILVER FIR	2,614	17,790	10,719	1,745	25,313	13,134	--	5,953	1,492	341	--
SITKA SPRUCE	1,222	870	10,019	195	3,978	48,853	696	136,984	19,580	357	720
LODGEPOLE PINE	--	--	--	--	--	1,417	846	--	4,048	186	--
GRAND FIR	615	55	--	--	--	5,651	--	--	11,953	--	129
MOUNTAIN HEMLOCK	208	484	--	--	--	--	--	--	--	--	--
ALASKA CEDAR	435	511	--	--	--	--	--	1,066	--	--	--
WESTERN WHITE PINE	25	38	1,187	410	--	--	--	--	-3,271	3,865	--
SUBALPINE FIR	-356	515	--	--	--	--	--	--	--	--	--
TOTAL SOFTWOODS	44,109	89,716	474,636	32,901	429,602	801,955	34,464	1,250,903	220,826	16,876	293,450
HARDWOODS:											
RED ALDER	734	1,270	59,798	6,626	15,165	150,216	12,121	133,661	50,182	6,349	59,339
BIGLEAF MAPLE	357	88	7,261	--	2,020	12,940	617	17,968	14,170	3,034	3,354
BLACK COTTONWOOD	--	--	449	--	--	9,081	972	--	12,749	--	--
OREGON ASH	--	--	2,538	--	--	1,374	--	793	1,020	326	659
BITTER CHERRY	--	--	--	--	--	596	--	--	-430	430	--
PACIFIC MADRONE	36	--	--	--	--	--	--	549	62	506	841
OREGON WHITE OAK	--	--	--	--	--	--	--	--	344	--	--
TOTAL HARDWOODS	1,127	1,358	70,046	6,626	17,184	174,207	13,710	152,972	78,100	10,644	64,193
ALL SPECIES	45,236	91,074	544,682	39,527	446,786	976,161	48,174	1,403,875	298,926	27,520	357,644

TABLE 29--(CONTINUED)

SPECIES	ALL OWNERS[d] CURRENT NET ANNUAL GROWTH	ALL OWNERS[d] AVERAGE ANNUAL MORTALITY
	THOUSAND BOARD FEET, SCRIBNER RULE[e]	
SOFTWOODS:		
WESTERN HEMLOCK	617,093	97,343
DOUGLAS-FIR	709,776	36,445
WESTERN REDCEDAR	85,112	11,266
PACIFIC SILVER FIR	27,959	19,876
SITKA SPRUCE	79,673	2,118
LODGEPOLE PINE	5,465	1,032
GRAND FIR	18,219	55
MOUNTAIN HEMLOCK	208	484
ALASKA CEDAR	435	511
WESTERN WHITE PINE	-2,060	4,313
SUBALPINE FIR	-356	515
TOTAL SOFTWOODS	1,541,527	173,956
HARDWOODS:		
RED ALDER	260,532	26,365
BIGLEAF MAPLE	34,727	3,740
BLACK COTTONWOOD	22,280	972
OREGON ASH	4,932	326
BITTER CHERRY	166	430
PACIFIC MADRONE	98	506
OREGON WHITE OAK	344	--
TOTAL HARDWOODS	323,480	32,338
ALL SPECIES	1,865,006	206,294

-- = none found or less than 500 cubic feet

[a]Totals may be off because of rounding.

[b]Subject to sampling error.

'Removals not available for National Forest.

[d]Removals not available for all ownerships.

[e]Negative net annual growth is the result of annual mortality exceeding gross annual growth.

TABLE 30--CHANGES IN TIMBERLAND AREA ON PRIVATE AND O m PUBLIC TIMBERLAND, BY OWNER, OLYMPIC PENINSULA, WASHINGTON, 1979-89[a]

DESCRIPTION	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
		THOUSAND ACRES[b]		
TIMBERLAND AREA IN 1979	595	1,339	632	2,567
GAINS AND LOSSES IN TIMBERLAND AREA (1979-89):				
A. CHANGES IN LAND USE--				
TIMBERLAND TO RIGHTS-OF-WAY	--	-16	-13	-29
TIMBERLAND TO *URBAN*	--	--	-13	-13
NET LAND USE CHANGES	--	-16	-26	-42
B. CHANGES IN INVENTORY AREA--				
FROM NATIONAL FOREST (GAINS)	--	--	17	17
C. CHANGES IN OWNERSHIP--				
FROM OTHER PUBLIC	-27	27	--	--
FROM FOREST INDUSTRY	36	-70	34	--
FROM OTHER PRIVATE	--	9	-9	--
NET OWNERSHIP CHANGES	9	-34	25	--
TIMBERLAND AREA IN 1989	604	1,289	648	2,542

-- = none found or less than 500 acres.

[a]Subject to sampling error and totals may be off because of rounding.

[b]Negative values are losses of timberland and positive values are gains of timberland. Losses are shown by the 1979 owner and gains are shown by the 1989 owner.

TABLE 31--CHANGES IN VOLUME OF GROWING-STOCK ON PRIVATE AND OTHER PUBLIC TIMBERLAND, BY SPECIES GROUP AND OWNER, OLYMPIC PENINSULA, WASHINGTON, 1979-89[a]

DESCRIPTION	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
		MILLION CUBIC FEET[b]		
SOFTWOODS:				
TOTAL VOLUME IN 1979	3,003	5,065	1,248	9,315
VOLUME CHANGES BECAUSE OF:				
A. CHANGES IN LAND CLASS--				
TIMBERLAND TO NONFOREST	--	-84	-25	-109
B. CHANGES IN INVENTORY AREA--				
FROM NATIONAL FOREST (GAINS)	--	--	84	84
C. CHANGES IN OWNERSHIP--				
FROM OTHER PUBLIC	-116	116	--	
FROM FOREST INDUSTRY	35	-181	146	
FROM OTHER PRIVATE	--	4	-4	
NET CHANGE	-81	-60	141	--
D. GROWTH, MORTALITY AND HARVEST				
PERIODIC GROSS GROWTH	991	1,945	638	3,574
PERIODIC MORTALITY	-110	-128	-52	-290
PERIODIC REMOVALS	-835	-2,472	-687	-3,994
NET CHANGE	45	-655	-101	-710
TOTAL VOLUME IN 1989	2,967	4,266	1,347	8,580
HARDWOODS:				
TOTAL VOLUME IN 1979	319	1,137	554	2,011
VOLUME CHANGES BECAUSE OF:				
A. CHANGES IN LAND CLASS--				
TIMBERLAND TO NONFOREST	--	--	-35	-35
B. CHANGES IN OWNERSHIP--				
FROM OTHER PUBLIC	-31	31	--	--
FROM FOREST INDUSTRY	97	100	3	--
FROM OTHER PRIVATE	--	1	-1	--
NET CHANGE	66	-68	2	--
C. GROWTH, MORTALITY AND HARVEST--				
PERIODIC GROSS GROWTH	141	364	236	740
PERIODIC MORTALITY	-33	-80	-44	-157
PERIODIC REMOVALS	-52	-387	-185	-624
NET CHANGE	56	-103	7	-41
TOTAL VOLUME IN 1989	441	966	528	1,935

-- = none found or less than 500,000 cubic feet.

[a] Subject to sampling error and totals may be off because of rounding.

[b] Negative values are losses of volume and positive values are gains of volume. Losses are shown by the 1979 owner and gains are shown by the 1989 owner.

TABLE 32--CHANGES IN VOLUME OF SAWTIMBER ON PRIVATE AND OTHER PUBLIC TIMBERLAND, BY OWNER, OLYMPIC PENINSULA, WASHINGTON 1979-89[a]

DESCRIPTION	OTHER PUBLIC	FOREST INDUSTRY	OTHER PRIVATE	ALL OWNERS
	MILLION BOARD FEET. SCRIBNER RULE[b]			
SOFTWOODS:				
TOTAL VOLUME IN 1979	12,918	21,098	4,278	38,294
VOLUME CHANGES BECAUSE OF:				
A. CHANGES IN LAND CLASS-- TIMBERLAND TO NONFOREST	--	-319	-65	-384
B. CHANGES IN INVENTORY AREA-- FROM NATIONAL FOREST (GAINS)	--	--	429	429
C. CHANGES IN OWNERSHIP--				
FROM OTHER PUBLIC	-464	464	--	--
FROM FOREST INDUSTRY	148	-687	538	--
FROM OTHER PRIVATE	--	9	-9	--
NET CHANGE	-316	-214	530	--
D. GROWTH, MORTALITY, AND HARVEST--				
PERIODIC GROSS GROWTH	4,975	9,018	2.799	16,792
PERIODIC MORTALITY	-329	-345	-169	-842
PERIODIC REMOVALS	-4,296	-12,181	-2,958	-19.435
NET CHANGE	350	-3,508	-327	-3,485
TOTAL VOLUME IN 1989	12,952	17,057	4,845	34,854
HARDWOODS:				
TOTAL VOLUME IN 1979	829	3,203	1,586	5,618
VOLUME CHANGES BECAUSE OF:				
A. CHANGES IN LAND CLASS-- TIMBERLAND TO NONFOREST	--	--	-55	-55
B. CHANGES IN OWNERSHIP--				
FROM OTHER PUBLIC	-49	49	--	--
FROM FOREST INDUSTRY	106	120	14	--
FROM OTHER PRIVATE	--	--	--	--
NET CHANGE	57	-72	14	--
C. GROWTH, MORTALITY, AND HARVEST--				
PERIODIC GROSS GROWTH	660	1.672	899	3.231
PERIODIC MORTALITY	-66	-137	-107	-311
PERIODIC REMOVALS	-172	-1,504	-643	-2,319
NET CHANGE	422	31	149	601
TOTAL VOLUME IN 1989	1,308	3,162	1,694	6,164

-- = none found or less than 500,000 board feet.

[a] Subject to sampling error and totals may be off because of rounding.

[b] Negative values are losses of volume and positive values are gains of volume Losses are shown by the 1979 owner and gains are shown by the 1989 owner.

TABLE 33--TIMBER HARVEST BY OWNER, OLYMPIC PENINSULA, WASHINGTON, 1955-88

YEAR	OWNER			
	NATIONAL FOREST	OTHER PUBLIC	PRIVATE	ALL OWNERS
	THOUSAND BOARD FEET, SCRIBNER RULE			
1955	250,179	154,022	752,784	1,156,985
1956	267,300	141,597	772,290	1,181,187
1957	249,964	78,021	604,311	932,296
1958	268,928	84,039	527,598	880,565
1959	322,299	81,817	773,286	1,177,402
1960	250,929	95,319	802,742	1,148,990
1961	219,890	101,070	728,326	1,049,286
1962	273,300	117,172	687,754	1,078,226
1963	361,400	156,940	779,922	1,298,262
1964	403,800	174,171	966,062	1,544,033
1965	369,800	269,276	900,160	1,539,236
1966	300,214	198,568	998,121	1,496,903
1967	291,500	243,218	905,368	1,440,086
1968	351,414	339,096	1,013,645	1,704,155
1969	248,339	361,924	1,162,721	1,772,984
1970	253,947	326,409	977,677	1,558,033
1971	274,459	373,141	844,728	1,492,328
1972	275,794	546,140	978,623	1,800,557
1973	296,838	506,836	1,301,694	2,105,368
1974	273,389	422,827	1,182,611	1,878,827
1975	242,217	303,647	1,002,195	1,548,059
1976	296,075	446,595	1,120,676	1,863,346
1977	332,446	419,760	984,194	1,736,400
1978	303,283	468,974	1,044,006	1,816,263
1979	307,734	693,650	1,072,461	2,073,845
1980	276,674	506,707	798,198	1,581,579
1981	182,258	252,436	643,299	1,077,993
1982	149,064	219,369	983,039	1,351,472
1983	278,798	274,773	1,333,999	1,887,570
1984	270,469	415,054	1,122,834	1,808,357
1985	249,563	565,177	1,222,615	2,037,355
1986	247,345	512,124	1,279,820	2,039,289
1987	232,237	422,595	1,596,290	2,251,122
1988	274,755	335,848	1,632,509	2,243,112

Source: (State of Washington 1955-88).

Acknowledgments

This inventory was completed with the cooperation and assistance of many. The Washington Department of Natural Resources provided ownership maps, aerial photography, and training for disease and insect identification. County assessors provided ownership information. Ecologists of the National Forest System trained crews in plant identification and ecosystem classification. Timber companies and many individuals allowed access to their forest lands. The Olympic National Forest provided forest resource inventory data for the Forest.

We thank Dale Baer, Janet Blankenship, Perry Colclasure, Cornell Ferrell, Glenda Goodwyne, Erica Hanson, Jim Harrow, Joanne Hildreth, Bruce Hiserote, Mark Hollaendar, J.D. Lloyd, Bob McMahon, Theodore Morns, Manuel Richman, and Sam Solano, for data collection. For compilation of statistics, we also thank Barbara Beil, Tom Farrenkopf, Susan Ferneau, Mary Mei, Mary Ellen Pearce, Carolyn Pottorff, Clara Yung, and Richard Zimmerman.

Metric Equivalents

1,000 acres = 404.7 hectares
1,000 cubic feet = 28.3 cubic meters
1 cubic foot per acre = 0.07 cubic meter per hectare
1 foot = 0.3048 meter
1 inch = 2.54 centimeters
1 mile = 1.609 kilometers

Literature Cited

Bassett, Patricia M.; Oswald, Daniel D. 1981. Timber resource statistics for the Olympic Peninsula, Washington. Resour. Bull. PNW-93. Portland, OR: U.S. Department of Agriculture, Forest Sewice, Pacific Northwest Forest and Range Experiment Station. 24 p.

Bolsinger, Charles L. 1971. Timber resources or the Olympic Peninsula, Washington. Resour. Bull. PNW-36. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station. 72 p.

Cochran, W.G. 1977. Sampling techniques. 3d ed. New York: John Wiley & Sons. 413 p.

Little, Elbert L., Jr. 1979. Checklist of United States trees (native and naturalized). Agric. Handb. 541. Washington, DC: U.S. Department of Agricutture. 375 p.

MacLean, Colin D. 1980. A technique for identifying treatment opportunities from western Oregon and Washington forest survey plots. Gen. Tech Rep. PNW-102. Portland, OR: U.S. Department of Agricutture, Forest Service, Pacific Northwest Forest and Range Experiment Station. 16 p.

State of washington, Department of Natural Resources. 1955-88. Timber harvest report. Olympia, WA. Annual.

U.S. Department of Commerce. 1983. 1980 census of population. Volume 1: Characteristics of the population. Part 1: United States summary. Washington, DC.

Wiiey, Kenneth N. 1978. Site index tables for western hemlock in the Pacific Northwest. Weyerhaeuser Forestry Pap. 17. Centralia, WA: Weyerhaeuser Company, Western Forestry Research Center. 26 p.

MacLean, Colin D.; Ohmann, Janet L.; Bassett, Patricia M. 1991. Preliminary timber resource statistics for the Olympic Peninsula, Washington. Resour. Bull. PNW-RB-178. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 45 p.

This report summarizes a 1989 timber resource inventory of five counties in the Olympic Peninsula region of Washington. Clallam, Grays Harbor, Jefferson, Mason, and Thurston. Detailed tables of forest area, timber volume, growth, mortality, and harvest are presented.

Keywords: Forest surveys, forest inventory, statistics (forest), timber resources, resources (forest), Olympic Peninsula, Washington (Olympic Peninsula).

Pacific Northwest Research Station
319 S.W. Pine St.
P.O. Box 3890
Portland, Oregon 97208-3890

U.S. Department of Agriculture
Pacific Northwest Research Station
319 S.W. Pine Street
P.O. Box 3890
Portland, Oregon 97208

Official Business
Penalty for Private Use, $300

BULK RATE
POSTAGE +
FEES PAID
USDA-FS
PERMIT No. G-40

do NOT detach label