

List of tables as supplement to:

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Forest Area

Table 1—Area of sampled land and water by land status and ownership group

Table 2—Area of forest land by forest type, ownership group, and land status

Table 3—Area of forest land by forest type and stand age class

Table 4—Area of forest land by ownership and land status

Table 5—Area of forest land by forest type and land status

Table 6—Area of forest land by forest type and site productivity class

Table 7—Area of forest land by forest type and stand size class

Table 8—Area of forest land by forest type and ecosection

Table 9—Area of timberland by forest type and stand size class

Number of Trees

Table 10—Number of live trees on forest land by species and diameter class

Table 11—Number of dead trees on forest land by species and diameter class

Table 12—Number of growing stock trees on timberland by species and diameter class

Table 13—Number of live trees on forest land by forest type and ownership group

Table 14—Number of dead trees on forest land by forest type and ownership group

Table 15—Average number of live trees per acre on forest land by forest type and ownership group

Table 16—Average number of dead trees per acre on forest land by forest type and ownership group

Volume

Table 17—Net volume of live trees on forest land by ownership and land status

Table 18—Net volume of live trees on forest land by forest type and stand size class

Table 19—Net volume of live trees on forest land by forest type and ownership group

Table 20—Net volume of live trees on forest land by species and diameter class

Table 21—Net volume of live trees on forest land by species and ownership group

Table 22—Net volume of live trees on forest land by forest type and stand age class

Table 23—Net volume of growing stock trees on timberland by species and diameter class

Table 24—Net volume of live trees on forest land by ownership group and land status

Table 25—Average net volume per acre of live trees on forest land by forest type and stand age class

Table 26—Average net volume per acre of live trees on forest land by forest type and stand size class

Table 27—Average net volume per acre of live trees on forest land by forest type and ownership group

Table 28—Average gross volume per acre of dead trees on forest land by forest type and stand age class

Table 29—Average gross volume per acre of dead trees on forest land by forest type and ownership group

Table 30—Net volume of growing stock trees on timberland by species and ownership group

Table 31—Net cubic volume of sawtimber-size trees on timberland by species and ownership group

Table 32—Gross volume of dead trees on forest land by ownership and land status

Table 33—Gross volume of dead trees on forest land by forest type and stand size class

Table 34—Gross volume of dead trees on forest land by forest type and ownership group

Table 35—Gross volume of dead trees on forest land by species and ownership group

Table 36—Gross volume of dead trees on forest land by species and diameter class

Table 37—Gross volume of dead trees on forest land by forest type and stand age class

Table 38—Net board-foot volume (Scribner rule) of growing stock sawtimber trees on timberland by forest type and ownership group

Table 39—Net board-foot volume (Scribner rule) of growing stock sawtimber trees on timberland by forest type and stand size class

Table 40—Net board-foot volume (Scribner rule) of growing stock sawtimber trees on timberland by species and diameter class

Table 41—Net board-foot volume (international ¼-inch rule) of growing stock sawtimber trees on timberland by species and diameter class

Table 42—Net board-foot volume (international ¼-inch rule) of growing stock sawtimber trees on timberland by species and ownership group

Table 43—Average net board-foot volume per acre (Scribner rule) of growing stock sawtimber trees on timberland by forest type and ownership group

Aboveground Biomass

Table 44—Aboveground biomass of live trees on forest land by ownership and land status

Table 45—Aboveground biomass of live trees on forest land by forest type and land status

Table 46—Aboveground biomass of dead trees on forest land by ownership and land status

Table 47—Aboveground biomass of dead trees on forest land by forest type and land status

Table 48—Aboveground biomass of live trees on forest land by forest type and ownership group

Table 49—Aboveground biomass of dead trees on forest land by forest type and ownership group

Table 50—Aboveground biomass of live trees on forest land by forest type and stand size class

Table 51—Aboveground biomass of dead trees on forest land by forest type and stand size class

Table 52—Aboveground biomass of live trees on forest land by forest type and stand age class

Table 53—Aboveground biomass of dead trees on forest land by forest type and stand age class

Table 54—Aboveground biomass of live trees by forest type and ecosection

Table 55—Aboveground biomass of live trees on forest land by species and diameter class

Table 56—Aboveground biomass of dead trees on forest land by species and diameter class

Table 57—Average aboveground biomass per acre of live trees on forest land by forest type and ownership group

Table 58—Average aboveground biomass per acre of dead trees on forest land by forest type and ownership group

Table 59—Average aboveground biomass per acre of live trees on forest land by forest type and stand size class

Table 60—Average aboveground biomass per acre of dead trees on forest land by forest type and stand size class

Table 61—Average aboveground biomass per acre of live trees on forest land by forest type and stand age class

Table 62—Average aboveground biomass per acre of dead trees on forest land by forest type and stand age class

Carbon

Table 63—Aboveground carbon mass of live trees on forest land by ownership and land status

Table 64—Aboveground carbon mass of dead trees on forest land by ownership and land status

Table 65—Average aboveground carbon mass per hectare of live trees on forest land by forest type and ownership group

Table 66—Average aboveground carbon mass per hectare of dead trees on forest land by forest type and ownership group

Table 67—Aboveground carbon mass of live trees on forest land by forest type and ownership group

Table 68—Aboveground carbon mass of dead trees on forest land by forest type group and ownership group

Table 69—Aboveground carbon mass of live trees on forest land by forest type and stand size class

Table 70—Aboveground carbon mass of dead trees on forest land by forest type and stand size class

Table 71—Aboveground carbon mass of live trees on forest land by species and diameter class

Table 72—Aboveground carbon mass of dead trees on forest land by species and diameter class

Table 73—Aboveground carbon mass of live trees by forest type and ecosection

Down Woody Material

Table 74—Carbon mass of down woody material on forest land by owner and forest type

Table 75—Carbon mass per hectare of down woody material on forest land by owner and forest type

Table 76—Carbon mass of down woody material on forest land by forest type and stand age class

Table 77—Down woody material biomass on forest land by owner and land status

Table 78—Down woody material biomass on forest land by owner and stand size class

Soil Carbon

Table 79—Total soil organic carbon and soil carbon density by forest type

Table 80—Average soil organic carbon density by layer and forest type and soil layer

Nonforest and Understory Vegetation

Table 81—Number of sampled forest and nonforest plots by measurement year

Table 82—Total count of conditions on which understory plant species were recorded and mean percentage of cover on forested plots

Table 83—Elevational distribution of nonforest dominance classes of understory vegetation

Table 84—Constancy and percent cover of nonforest vegetation among dominance classes

Table 85—Constancy and percentage of cover of understory vegetation by species and forest type

Table 86—Number of invasive species recorded on all plots

Table 87—Distribution of plots among physiographic classes and elevation by forest type

Table 88—Distribution and mean cover of understory species by growth habit and forest type

Ground Layer

Table 89—Estimates of ground layer biomass, carbon, and nitrogen stocks by forest type for forested lands

Table 90—Estimates of ground layer biomass, carbon, and nitrogen stocks by functional group for forested lands

Disturbance

Table 91—Area of disturbance by disturbance type, among landowners

Table 1—Area of sampled land and water, by land status and ownership group

Land status	Ownership group															
	Federal government															
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total federal		State and local government		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>																
Unreserved forest land:																
Timberland	121.1	62.2	179.1	74.3	--	--	--	--	300.2	96.9	2,125.3	216.5	526.2	119.3	2,951.7	257.6
Other unreserved forest land	1,972.6	186.4	856.2	107.9	--	--	--	--	2,828.9	215.2	10,336.0	308.0	1,672.4	133.3	14,837.3	362.5
Total	2,093.8	187.3	1,035.3	109.1	--	--	--	--	3,129.1	216.5	12,461.2	276.7	2,198.6	126.8	17,788.9	302.7
Reserved forest land:																
Reserved productive forest land	52.8	41.5	--	--	68.2	45.5	70.3	47.5	191.4	77.0	113.4	56.7	--	--	304.7	95.6
Other reserved forest land	119.4	59.3	--	--	1,702.3	114.8	561.2	111.9	2,382.8	161.2	258.2	88.1	22.7	23.6	2,663.7	185.2
Total	172.2	69.9	--	--	1,770.5	109.4	631.5	115.5	2,574.2	158.6	371.6	104.4	22.7	23.6	2,968.5	191.3
All forest land	2,266.0	190.5	1,035.3	109.1	1,770.5	109.4	631.5	115.5	5,703.3	223.0	12,832.8	265.0	2,221.3	126.7	20,757.4	294.8
Nonforest and other area:																
Nonforest land	1,478.1	157.0	355.9	86.4	3,896.4	165.3	147.6	65.7	5,878.0	237.8	4,945.0	249.9	951.6	125.0	11,774.7	316.7
Noncensus water	32.2	25.2	--	--	97.9	41.2	--	--	130.1	48.3	37.5	20.5	--	--	167.6	52.5
Census water	--	--	--	--	--	--	--	--	--	--	741.0	135.0	--	--	741.0	135.0
Total	1,510.3	158.2	355.9	86.4	3,994.3	166.1	147.6	65.7	6,008.1	238.0	5,723.5	267.9	951.6	125.0	12,683.3	292.9
All sampled area	3,776.3	215.3	1,391.3	82.5	5,764.8	126.0	779.1	132.1	11,711.4	223.6	18,556.3	248.3	3,172.9	137.3	33,440.7	35.4

Note: Totals may be off due to rounding; data subject to error; SE = standard error; -- = less than 50 acres was estimated.

Table 2—Area of forest land by forest type, ownership group, and land status

Forest type	Ownership group																			
	Federal government						State and local government						Private						All Owners	
	Timberland		Other forest land		Total		Timberland		Other forest land		Total		Timberland		Other forest land		Total		All Owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>																				
Softwoods:																				
White spruce	104.6	56.0	533.0	118.0	637.6	127.0	344.6	94.5	1,909.8	225.9	2,254.4	239.6	96.6	54.7	409.4	98.9	506.0	107.8	3,398.0	289.5
Black Spruce	--	--	3,506.7	241.0	3,506.7	241.0	--	--	6,499.3	311.5	6,499.3	311.5	--	--	784.4	119.6	784.4	119.6	10,790.3	397.7
Tamarack	--	--	139.2	63.2	139.2	63.2	32.7	27.2	54.2	33.7	86.9	43.0	--	--	--	--	--	--	226.1	76.5
Total	104.6	56.0	4,178.8	238.2	4,283.4	234.7	377.4	98.1	8,463.3	313.2	8,840.7	309.2	96.6	54.7	1,193.8	121.0	1,290.3	121.3	14,414.4	380.2
Hardwoods:																				
Alaska paper birch	223.3	84.9	549.4	125.4	772.7	147.8	1,246.9	170.4	1,412.9	191.8	2,659.9	237.8	205.4	77.5	255.7	84.1	461.1	111.7	3,893.7	291.3
Quaking aspen	121.9	61.7	139.5	64.7	261.4	88.2	525.9	117.3	566.2	129.9	1,092.1	170.5	202.7	78.5	157.0	68.2	359.7	99.7	1,713.2	212.7
Balsam poplar	--	--	133.3	62.4	133.3	62.4	54.6	41.1	--	--	54.6	41.1	21.5	22.4	8.4	9.1	29.9	24.2	217.8	78.3
Total	345.2	105.0	822.1	153.7	1,167.3	181.2	1,827.5	197.0	1,979.1	224.6	3,806.6	267.0	429.6	109.4	421.1	104.2	850.8	139.1	5,824.7	332.2
Nonstocked	41.8	36.5	171.8	71.8	213.6	79.6	33.8	32.5	266.0	89.2	299.7	95.0	--	--	4.9	5.2	4.9	5.2	518.3	123.8
All forest types	491.6	122.8	5,172.7	241.7	5,664.4	232.9	2,238.6	219.5	10,708.4	316.0	12,947.0	276.8	526.2	119.3	1,619.8	134.1	2,146.0	131.0	20,757.4	294.8

Note: Totals may be off due to rounding; data subject to error; SE = standard error; -- = less than 50 acres was estimated.

Table 3—Area of forest land by forest type and stand age class

Forest type	Stand age class (years)																								Nonstocked	Unknown	All forest land	
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+							
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE						
Thousand acres																												
Softwoods:																												
White spruce	176.5	72.3	210.9	77.0	396.4	104.2	464.7	111.5	312.7	91.2	392.8	107.7	392.5	104.3	347.1	101.5	312.1	97.6	140.1	65.6	112.3	53.9	--	--	140.0	62.8	3,398.0	289.5
Black Spruce	1,172.4	179.0	522.9	121.6	1,100.3	175.6	2,228.1	240.5	1,713.7	215.4	1,301.2	191.1	842.0	155.0	743.5	150.1	322.2	97.6	168.5	73.3	34.8	33.4	--	--	640.8	137.7	10,790.3	397.7
Tamarack	39.6	35.4	64.1	38.7	16.4	12.5	44.1	36.1	39.6	35.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22.2	23.3	226.1	76.5
Total	1,388.4	194.4	797.9	147.8	1,513.2	201.5	2,736.9	261.9	2,066.0	232.5	1,693.9	215.6	1,234.4	182.9	1,090.7	178.6	634.3	136.2	308.6	97.8	147.1	62.7	--	--	803.0	151.5	14,414.4	380.2
Hardwoods:																												
Alaska paper birch	1,114.5	174.5	708.7	138.4	356.9	95.8	510.6	117.6	391.6	99.8	74.5	43.0	111.9	54.0	86.6	51.8	69.0	45.1	--	--	--	--	--	--	469.3	117.9	3,893.7	291.3
Quaking aspen	771.2	146.9	197.6	77.1	304.7	94.6	145.6	65.5	100.5	54.5	6.9	7.3	--	--	--	--	--	--	--	--	--	--	--	--	186.8	75.5	1,713.2	212.7
Balsam poplar	--	--	35.7	30.7	59.3	39.4	67.5	46.5	21.5	22.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33.8	32.5	217.8	78.3
Total	1,885.7	218.2	942.0	157.5	720.9	137.5	723.7	139.1	513.5	115.2	81.4	43.6	111.9	54.0	86.6	51.8	69.0	45.1	--	--	--	--	--	--	689.9	144.0	5,824.7	332.2
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	518.3	123.8	--	--	518.3	123.8
All forest types	3,274.1	273.0	1,739.9	211.6	2,234.1	240.5	3,460.6	289.1	2,579.6	257.5	1,775.3	219.6	1,346.4	189.7	1,177.3	185.1	703.3	143.4	308.6	97.8	147.1	62.7	518.3	123.8	1,492.9	205.1	20,757.4	294.8

Table 4—Area of forest land by ownership and land status

Ownership group	Land status													
	Unreserved forest land:						Reserved forest land:							
	Timberland		Other unreserved forest land		Total, unreserved		Reserved productive forest land		Other reserved forest land		Total, reserved forest land		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>														
Federal government														
Bureau of Land Management	121.1	62.2	1,972.6	186.4	2,093.8	187.3	52.8	41.5	119.4	59.3	172.2	69.9	2,266.0	190.5
Departments of Defense and Energy	179.1	74.3	856.2	107.9	1,035.3	109.1	--	--	--	--	--	--	1,035.3	109.1
National Park Service	--	--	--	--	--	--	68.2	45.5	1,702.3	114.8	1,770.5	109.4	1,770.5	109.4
U.S. Fish and Wildlife Service	--	--	--	--	--	--	70.3	47.5	561.2	111.9	631.5	115.5	631.5	115.5
Total	300.2	96.9	2,828.9	215.2	3,129.1	216.5	191.4	77.0	2,382.8	161.2	2,574.2	158.6	5,703.3	223.0
State and local government:	2,125.3	216.5	10,336.0	308.0	12,461.2	276.7	113.4	56.7	258.2	88.1	371.6	104.4	12,832.8	265.0
Private:	526.2	119.3	1,672.4	133.3	2,198.6	126.8	--	--	22.7	23.6	22.7	23.6	2,221.3	126.7
All owners														
Total	2,951.7	257.6	14,837.3	362.5	17,788.9	302.7	304.7	95.6	2,663.7	185.2	2,968.5	191.3	20,757.4	294.8

Table 5—Area of forest land by forest type and land status

Forest type	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>														
Softwoods:														
White spruce	429.3	108.4	2,630.5	262.9	3,059.7	278.1	116.5	57.3	221.8	72.3	338.3	89.9	3,398.0	289.5
Black Spruce	--	--	8,846.3	370.3	8,846.3	370.3	--	--	1,944.1	184.6	1,944.1	184.6	10,790.3	397.7
Tamarack	32.7	27.2	63.3	36.9	96.0	45.7	--	--	130.0	61.5	130.0	61.5	226.1	76.5
Total	462.0	111.6	11,540.0	370.1	12,002.0	365.4	116.5	57.3	2,295.9	180.3	2,412.4	182.2	14,414.4	380.2
Hardwoods:														
Alaska paper birch	1,551.3	196.1	2,045.9	231.4	3,597.2	281.3	124.4	58.8	172.1	65.5	296.5	88.1	3,893.7	291.3
Quaking aspen	786.6	146.5	823.1	155.0	1,609.8	205.4	63.9	45.2	39.6	35.4	103.4	56.7	1,713.2	212.7
Balsam poplar	76.2	46.8	42.2	33.8	118.3	57.4	--	--	99.5	53.3	99.5	53.3	217.8	78.3
Total	2,414.1	234.1	2,911.2	271.5	5,325.3	317.1	188.2	74.2	311.1	89.7	499.4	114.8	5,824.7	332.2
Nonstocked	75.6	48.9	386.0	106.6	461.6	116.6	--	--	56.7	42.2	56.7	42.2	518.3	123.8
Total	2,951.7	257.6	14,837.3	362.5	17,788.9	302.7	304.7	95.6	2,663.7	185.2	2,968.5	191.3	20,757.4	294.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 acres was estimated.

Table 6—Area of forest land by forest type and site productivity class

Forest type	Site productivity class							
	High		Medium		Low		All productivity classes	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>								
Softwoods:								
White spruce	--	--	--	--	3,398.0	289.5	3,398.0	289.5
Black Spruce	--	--	--	--	10,790.3	397.7	10,790.3	397.7
Tamarack	--	--	--	--	226.1	76.5	226.1	76.5
Total	--	--	--	--	14,414.4	380.2	14,414.4	380.2
Hardwoods:								
Alaska paper birch	--	--	91.1	53.6	3,802.6	287.4	3,893.7	291.3
Quaking aspen	--	--	85.1	50.6	1,628.1	208.8	1,713.2	212.7
Balsam poplar	--	--	27.3	29.6	190.5	73.1	217.8	78.3
Total	--	--	203.5	79.4	5,621.2	328.7	5,824.7	332.2
Nonstocked	--	--	--	--	518.3	123.8	518.3	123.8
Total	--	--	203.5	79.4	20,553.9	299.2	20,757.4	294.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 7—Area of forest land by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>										
Softwoods:										
White spruce	646.9	132.5	1,025.9	167.3	1,725.2	217.3	--	--	3,398.0	289.5
Black Spruce	8.4	8.1	252.1	83.3	10,529.7	397.5	--	--	10,790.3	397.7
Tamarack	--	--	--	--	226.1	76.5	--	--	226.1	76.5
Total	655.4	132.6	1,278.0	184.9	12,481.0	397.2	--	--	14,414.4	380.2
Hardwoods:										
Alaska paper birch	155.0	63.2	1,136.4	159.9	2,602.3	258.6	--	--	3,893.7	291.3
Quaking aspen	20.5	22.2	435.7	108.3	1,257.0	188.1	--	--	1,713.2	212.7
Balsam poplar	89.0	51.6	65.3	42.3	63.4	42.0	--	--	217.8	78.3
Total	264.6	86.2	1,637.4	186.6	3,922.7	304.7	--	--	5,824.7	332.2
Other nonstocked:	--	--	--	--	--	--	518.3	123.8	518.3	123.8
Total	920.0	156.7	2,915.4	253.0	16,403.7	385.8	518.3	123.8	20,757.4	294.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 8—Area of forest land by forest type and ecosection

Forest type	Ecosection ^a													
	Yukon River Lowlands		Tanana-Kuskokwim Lowlands		Kuskokwim Mountains		Yukon-Tanana Uplands		Ray Mountains		Alaska Range		All ecosections	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>														
Softwoods:														
White spruce	21.5	22.4	1,014.5	162.1	--	--	1,581.1	209.4	124.6	61.6	656.3	138.0	3,398.0	289.5
Black spruce	161.8	68.3	3,810.6	291.1	503.5	121.0	5,080.6	321.3	715.1	145.6	449.4	113.5	10,721.1	397.1
Tamarack	--	--	226.1	76.5	--	--	--	--	--	--	--	--	226.1	76.5
Total	183.3	71.8	5,051.1	318.3	503.5	121.0	6,661.7	346.2	839.7	158.1	1,105.7	175.9	14,345.1	380.5
Hardwoods:														
Aspen	--	--	773.1	147.5	32.1	29.1	724.6	143.6	130.2	65.1	34.2	30.0	1,694.1	212.5
Paper birch	126.5	61.6	1,339.3	191.5	285.6	88.3	1,718.9	197.3	348.1	100.2	75.3	45.6	3,893.7	291.3
Balsam poplar	--	--	188.2	72.7	--	--	--	--	--	--	--	--	217.8	78.3
Total	126.5	61.6	2,300.6	239.2	317.7	94.6	2,443.4	236.3	478.3	118.5	109.5	54.6	5,805.6	332.8
Nonstocked	180.0	74.6	164.7	67.9	111.6	58.8	55.9	41.9	6.1	6.6	--	--	518.3	123.8
All forest types	489.8	117.2	7,516.5	356.2	932.8	163.6	9,161.0	386.9	1,324.0	192.2	1,215.2	185.1	20,669.0	298.5

Note: Totals may be off due to rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a From Nowacki et al. 2001.

Table 9—Area of timberland by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>										
Softwoods:										
White spruce	241.5	81.5	95.7	50.4	92.0	53.4	--	--	429.3	108.4
Black Spruce	--	--	--	--	--	--	--	--	--	--
Tamarack	--	--	--	--	32.7	27.2	--	--	32.7	27.2
Total	241.5	81.5	95.7	50.4	124.8	59.9	--	--	462.0	111.6
Hardwoods:										
Alaska paper birch	83.5	46.6	696.9	131.5	770.9	149.0	--	--	1,551.3	196.1
Quaking aspen	20.5	22.2	240.4	82.0	525.8	123.3	--	--	786.6	146.5
Balsam poplar	48.8	37.2	27.3	29.6	--	--	--	--	76.2	46.8
Total	152.8	65.7	964.6	151.1	1,296.7	190.2	--	--	2,414.1	234.1
Nonstocked	--	--	--	--	--	--	75.6	48.9	75.6	48.9
All forest types	394.3	104.1	1,060.3	159.3	1,421.5	198.5	75.6	48.9	2,951.7	257.6

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 10—Number of live trees^a on forest land, by species and diameter class

Species	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+	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
Thousand trees																																
Softwoods:																																
White spruce	1,090,537	128,396	492,316	50,665	245,811	22,301	128,511	11,843	61,242	6,638	32,192	4,432	15,133	2,756	5,904	1,322	2,300	708	711	372	1,606	613	171	180	--	--	--	--	--	--	2,076,435	189,503
Black spruce	8,398,157	469,061	1,759,824	110,572	270,349	24,404	42,312	6,274	6,098	1,631	177	187	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10,476,917	537,576
Tamarack	143,536	37,549	9,331	4,710	885	495	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	153,751	39,807
Total	9,632,230	475,658	2,261,471	116,667	517,044	31,573	170,823	13,043	67,341	6,843	32,369	4,434	15,133	2,756	5,904	1,322	2,300	708	711	372	1,606	613	171	180	--	--	--	--	--	--	12,707,103	538,036
Hardwoods:																																
Quaking aspen	326,513	97,153	101,976	24,770	61,243	11,956	38,691	9,386	15,276	3,845	5,689	1,895	1,316	721	451	295	--	--	--	--	--	--	--	--	--	--	--	--	--	--	551,155	112,334
Paper birch	1,325,958	166,593	449,722	54,198	172,950	19,612	74,255	9,187	34,281	5,639	12,563	2,923	2,786	954	861	385	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,073,377	204,360
Balsam poplar	52,986	23,581	18,814	7,447	17,190	4,794	9,430	2,472	4,971	1,805	3,761	1,803	1,815	1,078	751	377	164	178	--	--	287	235	--	--	--	--	--	--	--	--	110,170	33,223
Total	1,705,457	195,410	570,512	59,741	251,383	23,444	122,376	13,337	54,528	7,028	22,013	4,104	5,917	1,585	2,063	600	164	178	--	--	287	235	--	--	--	--	--	--	--	--	2,734,701	231,862
All forest types:	11,337,687	520,984	2,831,983	135,089	768,427	41,146	293,199	19,802	121,869	10,299	54,382	6,474	21,050	3,199	7,967	1,514	2,464	725	711	372	1,893	736	171	180	--	--	--	--	--	--	15,441,804	590,645

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all live trees >= 1 inch in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 11—Number of dead trees^a on forest land, by species and diameter class

Species	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			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Thousand trees																														
Softwoods:																														
White spruce	159,980	27,064	96,241	21,252	46,361	8,075	19,148	3,191	8,718	1,764	4,034	1,060	747	372	1,567	650	170	178	--	--	341	258	--	--	--	--	--	--	337,307	52,643
Black spruce	2,923,907	241,531	549,388	54,429	91,820	9,753	10,316	1,701	572	429	392	274	203	196	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3,576,599	271,391
Tamarack	250,322	48,231	44,434	8,994	6,822	1,726	1,597	545	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	303,175	51,918
Total	3,334,210	246,546	690,064	59,724	145,003	13,206	31,060	3,744	9,290	1,852	4,426	1,093	950	418	1,567	650	170	178	--	--	341	258	--	--	--	--	--	--	4,217,081	279,553
Hardwoods:																														
Quaking aspen	261,156	69,428	85,904	16,244	30,430	6,616	9,514	3,174	2,188	1,112	669	353	287	235	--	--	--	--	--	--	--	--	--	--	--	--	--	--	390,148	81,051
Paper birch	258,375	48,819	118,644	28,261	45,710	6,602	17,425	3,050	7,233	1,668	2,414	680	1,242	559	--	--	--	--	--	--	--	--	--	--	--	--	--	--	451,043	71,459
Balsam poplar	9,004	4,573	9,797	4,858	4,121	1,647	2,979	1,340	1,151	543	493	535	493	535	368	265	--	--	--	--	--	--	--	--	--	--	--	--	28,406	9,168
Total	528,535	84,328	214,346	32,924	80,260	9,377	29,917	4,514	10,572	2,059	3,577	960	2,022	809	368	265	--	--	--	--	--	--	--	--	--	--	--	--	869,597	106,820
All species	3,862,745	261,638	904,410	73,646	225,263	17,235	60,977	5,901	19,862	2,942	8,003	1,498	2,972	905	1,935	752	170	178	--	--	341	258	--	--	--	--	--	--	5,086,678	301,352

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50 trees were estimated.

^a Includes all dead trees >= 1 inch in diameter at breast height.

Table 12—Number of growing stock trees^a on timberland, by species and diameter class

Species	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+	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
Thousand trees																																
Softwoods:																																
White spruce	148,829	35,686	73,706	16,839	43,307	10,182	34,748	8,126	17,101	4,216	10,438	2,801	5,134	1,701	2,475	819	1,313	564	711	372	610	436	171	180	--	--	--	--	--	--	338,542	61,148
Black spruce	247,246	75,076	65,017	24,700	14,708	5,688	3,462	1,942	1,405	975	177	187	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	332,015	93,039
Tamarack	19,148	15,954	1,064	1,114	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20,212	17,043	
Total	415,223	83,422	139,787	36,473	58,015	11,883	38,210	8,310	18,506	4,320	10,615	2,806	5,134	1,701	2,475	819	1,313	564	711	372	610	436	171	180	--	--	--	--	--	--	690,769	117,277
Hardwoods:																																
Quaking aspen	157,350	62,306	29,084	14,693	27,128	8,470	21,643	7,470	11,338	3,695	4,833	1,852	994	574	451	295	--	--	--	--	--	--	--	--	--	--	--	--	--	252,821	72,071	
Paper birch	312,567	71,871	150,443	34,977	79,822	16,447	39,352	7,593	20,986	5,189	7,348	2,110	1,234	488	574	324	--	--	--	--	--	--	--	--	--	--	--	--	--	612,326	103,615	
Balsam poplar	15,529	11,590	9,185	6,003	8,516	3,396	3,651	1,393	2,735	1,576	1,528	1,149	846	647	338	252	--	--	--	--	--	--	--	--	--	--	--	--	--	42,328	18,872	
Total	485,446	101,788	188,712	37,761	115,466	18,932	64,646	11,112	35,058	6,758	13,710	3,280	3,074	978	1,363	494	--	--	--	--	--	--	--	--	--	--	--	--	--	907,475	129,919	
All species	900,669	155,449	328,498	60,353	173,481	24,053	102,856	14,746	53,564	8,592	24,325	4,672	8,208	2,038	3,839	955	1,313	564	711	372	610	436	171	180	--	--	--	--	--	--	1,598,245	211,077

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes live growing stock trees of commercial species that are >= 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 13—Number of live trees^a on forest land, by forest type and ownership group

Forest type	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																
Softwoods:																
White spruce	227,942	109,491	74,529	56,603	49,690	20,162	77,995	59,603	430,156	137,153	1,000,083	150,692	268,915	69,597	1,699,154	213,780
Black Spruce	782,289	159,169	717,043	204,208	912,773	126,702	329,021	98,041	2,741,127	293,978	6,841,144	481,966	775,182	138,682	10,357,452	572,961
Tamarack	--	--	31,454	27,615	9,541	6,334	--	--	40,995	28,332	24,187	21,522	--	--	65,183	35,579
Total	1,010,231	188,417	823,027	203,033	972,004	119,849	407,016	108,466	3,212,278	305,856	7,865,414	469,583	1,044,097	133,343	12,121,789	563,048
Hardwoods:																
Alaska paper birch	220,977	87,870	117,511	65,091	74,463	46,425	192,912	103,196	605,863	156,529	1,525,539	231,573	366,870	120,238	2,498,273	300,569
Quaking aspen	17,096	13,179	1,268	1,222	25,536	22,817	--	--	43,900	26,378	527,241	143,710	156,643	81,675	727,783	165,832
Balsam poplar	--	--	--	--	31,510	18,164	--	--	31,510	18,164	26,640	20,792	30,093	23,882	88,242	35,901
Total	238,073	90,454	118,780	65,102	131,509	53,999	192,912	103,196	681,273	160,360	2,079,420	259,862	553,606	145,031	3,314,299	330,397
Nonstocked	2,543	2,475	--	--	--	--	--	--	2,543	2,475	3,174	1,939	--	--	5,717	3,144
All forest types	1,250,847	202,371	941,806	205,194	1,103,513	125,901	599,928	139,583	3,896,094	320,971	9,948,008	497,843	1,597,702	169,927	15,441,804	590,645

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all dead trees >= 1 inch in diameter at breast height.

Table 14—Number of dead trees^a on forest land, by forest type and ownership group

Forest type	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																
Softwoods:																
White spruce	66,664	32,757	9,979	6,109	8,408	4,881	1,030	924	86,081	33,635	249,667	57,174	63,438	24,892	399,185	70,772
Black Spruce	402,334	92,520	159,127	46,353	303,584	58,915	3,191	1,268	868,236	119,011	1,593,397	163,902	187,704	66,137	2,649,337	212,302
Tamarack	--	--	--	--	30,513	22,999	--	--	30,513	22,999	23,403	17,902	--	--	53,916	29,145
Total	468,997	95,694	169,106	45,889	342,504	60,675	4,221	1,512	984,829	122,137	1,866,467	168,270	251,142	68,112	3,102,438	217,767
Hardwoods:																
Alaska paper birch	110,645	43,489	103,752	70,981	4,657	2,629	847	572	219,900	83,277	495,090	90,747	72,650	26,397	787,640	125,809
Quaking aspen	45,322	37,908	19,812	19,057	20,834	12,956	--	--	85,968	44,362	487,784	152,763	204,361	91,296	778,113	183,310
Balsam poplar	407	392	--	--	2,431	2,004	--	--	2,837	2,042	1,151	1,248	3,765	3,561	7,754	4,253
Total	156,373	57,712	123,565	73,304	27,921	13,227	847	572	308,705	94,221	984,025	173,994	280,777	92,363	1,573,507	217,912
Nonstocked	97,539	48,165	81,781	71,798	--	--	--	--	179,320	86,457	231,412	86,995	--	--	410,733	122,650
All forest types	722,910	110,806	374,452	95,919	370,425	59,915	5,068	1,610	1,472,855	158,163	3,081,905	236,862	531,918	109,010	5,086,678	301,352

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all dead trees >= 1 inch in diameter at breast height.

Table 15—Average number of live trees^a per acre on forest land, by forest type and ownership group

Forest type	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Trees per acre															
Softwoods:																
White spruce	604	232	835	370	340	47	1,508	305	648	158	452	49	518	83	500	47
Black Spruce	640	97	1,288	271	738	72	707	132	788	65	1,052	59	961	115	960	42
Tamarack	--	--	1,003	1,003	89	37	--	--	295	166	278	193	--	--	288	126
Total	632	93	1,215	228	652	66	787	137	750	59	893	47	787	83	841	34
Hardwoods:																
Alaska paper birch	601	174	459	198	730	364	1,690	343	721	136	594	77	753	167	642	63
Quaking aspen	150	103	19	19	323	323	--	--	168	87	489	109	420	192	425	83
Balsam poplar	--	--	--	--	317	50	--	--	236	78	487	101	1,006	559	405	109
Total	462	138	367	167	469	149	1,690	343	552	102	562	62	622	128	569	49
Nonstocked	17	17	--	--	--	--	--	--	14	14	10	5	--	--	11	5
All forest types	552	76	910	176	623	62	950	148	683	51	775	37	719	71	744	28

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all live trees >= 1 inch in diameter at breast height.

Table 16—Average number of dead trees^a per acre on forest land, by forest type and ownership group

Forest type	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Trees per acre															
Softwoods:																
White spruce	177	71	112	23	58	21	20	17	130	42	113	23	122	42	117	18
Black Spruce	329	61	286	69	246	39	7	2	249	29	245	22	233	73	246	17
Tamarack	--	--	--	--	283	149	--	--	219	126	269	145	--	--	238	96
Total	293	50	250	56	230	35	8	3	230	25	212	17	189	48	215	14
Hardwoods:																
Alaska paper birch	301	85	405	244	46	14	7	4	262	87	193	29	149	42	202	28
Quaking aspen	397	261	291	291	263	--	--	--	329	127	452	121	548	191	454	89
Balsam poplar	12	12	--	--	24	14	--	--	21	11	21	21	126	110	36	17
Total	303	87	381	198	99	35	7	4	250	67	266	42	315	91	270	33
Nonstocked:	645	137	2,398	2,398	--	--	--	--	967	283	705	156	--	--	792	143
All forest types	319	43	362	92	209	31	8	2	258	26	240	18	239	46	245	14

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all dead trees >=1 inch in diameter at breast height.

Table 17—Net volume of live trees^a on forest land, by ownership and land status

Ownership	Land status													
	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Million cubic feet														
Federal government:														
Bureau of Land Management	45.0	47.0	300.4	89.1	345.3	99.7	--	--	5.0	3.8	5.0	3.8	350.3	99.7
Departments of Defense and Energy	160.4	88.0	154.5	59.6	314.9	97.3	--	--	--	--	--	--	314.9	97.3
National Park Service	--	--	--	--	--	--	17.2	20.9	303.4	92.1	320.6	93.9	320.6	93.9
U.S. Fish and Wildlife Service	--	--	--	--	--	--	34.4	36.8	78.7	36.0	113.1	48.4	113.1	48.4
Total	205.3	99.7	454.9	107.1	660.2	139.3	51.6	42.3	387.2	98.7	438.8	105.4	1,099.0	173.3
State and local government	1,987.6	340.6	1,994.7	239.2	3,982.3	386.7	266.1	150.6	11.7	10.2	277.8	150.9	4,260.1	403.9
Private	511.1	170.0	544.3	121.2	1,055.4	196.5	--	--	--	--	--	--	1,055.4	196.5
All owners	2,704.1	387.9	2,993.8	284.3	5,697.9	439.1	317.7	156.4	398.9	99.2	716.6	184.1	6,414.5	464.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 18—Net volume of live trees^a on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>										
Softwoods:										
White spruce	1,301.5	322.8	867.6	168.3	314.7	63.3	--	--	2,483.8	357.4
Black Spruce	31.7	30.5	216.8	76.8	723.2	77.0	--	--	971.6	110.3
Tamarack	--	--	--	--	0.3	0.3	--	--	0.3	0.3
Total	1,333.2	323.7	1,084.4	183.4	1,038.2	94.3	--	--	3,455.8	361.4
Hardwoods:										
Alaska paper birch	368.1	165.7	1,500.0	242.1	174.8	42.2	--	--	2,042.9	278.4
Quaking aspen	47.3	51.2	614.1	168.7	58.8	28.6	--	--	720.2	173.3
Balsam poplar	155.2	96.8	37.9	25.3	2.4	2.1	--	--	195.5	99.9
Total	570.6	201.9	2,152.1	288.2	236.0	50.8	--	--	2,958.7	329.6
Nonstocked	--	--	--	--	--	--	--	--	--	--
All forest types	1,903.8	380.3	3,236.5	332.4	1,274.2	103.8	--	--	6,414.5	464.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 19—Net volume of live trees^a on forest land, by forest type and ownership group

Forest type	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Million cubic feet															
Softwoods:																
White spruce	126.3	51.2	57.0	38.7	155.3	67.7	63.3	42.9	401.9	101.7	1,611.3	309.9	470.7	151.6	2,483.8	357.4
Black Spruce	49.3	16.7	119.3	57.7	52.7	16.3	39.0	23.6	260.3	66.2	608.7	81.8	102.6	34.9	971.6	110.3
Tamarack	--	--	--	--	0.2	0.3	--	--	0.2	0.3	0.1	0.1	--	--	0.3	0.3
Total	175.6	52.9	176.3	66.1	208.2	68.0	102.3	46.8	662.4	116.3	2,220.1	311.2	573.3	151.0	3,455.8	361.4
Hardwoods:																
Alaska paper birch	139.8	67.3	138.6	83.2	22.7	21.5	10.8	11.6	312.0	109.7	1,491.5	248.8	239.5	89.5	2,042.9	278.4
Quaking aspen	34.9	34.6	--	--	0.3	0.3	--	--	35.2	34.6	513.4	151.5	171.5	84.7	720.2	173.3
Balsam poplar	--	--	--	--	89.4	69.1	--	--	89.4	69.1	35.1	26.8	71.1	67.1	195.5	99.9
Total	174.7	86.7	138.6	83.2	112.4	72.4	10.8	11.6	436.6	140.8	2,040.0	280.5	482.1	138.7	2,958.7	329.6
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	350.3	99.7	314.9	97.3	320.6	93.9	113.1	48.4	1,099.0	173.3	4,260.1	403.9	1,055.4	196.5	6,414.5	464.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 20—Net volume of live trees^a on forest land, by species and diameter class

Species		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+			
		Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
		Million cubic feet																											
Softwoods:																													
White spruce		553.7	54.1	668.5	70.9	573.2	69.2	503.4	75.1	366.0	73.8	212.3	50.9	110.4	34.4	43.1	22.7	112.1	43.9	20.0	21.1	--	--	--	--	--	--	3,162.7	344.3
Black spruce		524.6	52.0	185.8	30.8	57.3	17.2	2.6	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	770.2	82.7
Tamarack		2.2	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.2	1.5
Total		1,080.4	71.7	854.3	75.8	630.5	71.0	506.0	75.1	366.0	73.8	212.3	50.9	110.4	34.4	43.1	22.7	112.1	43.9	20.0	21.1	--	--	--	--	--	--	3,935.1	347.9
Hardwoods:																													
Quaking aspen		152.7	33.0	235.7	63.3	149.6	41.4	82.0	28.9	29.1	17.3	18.4	12.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	667.4	147.9
Paper birch		450.9	59.3	442.1	62.8	380.5	70.6	210.5	55.0	68.2	25.0	23.3	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,575.6	206.1
Balsam poplar		19.7	6.5	36.7	10.7	43.7	18.2	52.2	25.2	33.9	20.1	19.2	9.7	5.5	6.0	--	--	25.5	20.9	--	--	--	--	--	--	--	--	236.3	82.4
Total		623.3	68.5	714.5	90.3	573.8	84.5	344.7	69.4	131.2	35.9	60.9	18.2	5.5	6.0	--	--	25.5	20.9	--	--	--	--	--	--	--	--	2,479.3	265.9
All	Total	1,703.7	103.7	1,568.7	123.6	1,204.2	115.6	850.7	110.7	497.2	83.0	273.3	55.8	115.9	34.8	43.1	22.7	137.6	56.3	20.0	21.1	--	--	--	--	--	--	6,414.5	464.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 21—Net volume of live trees^a on forest land, by species and ownership group

Species	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Softwoods:																
White spruce	182.3	53.4	98.6	41.1	203.3	70.1	75.9	42.8	560.1	105.1	2,057.0	303.5	545.6	133.7	3,162.7	344.3
Black spruce	43.2	14.4	64.2	38.2	38.1	12.4	31.6	19.2	177.1	46.4	503.0	64.0	90.1	25.1	770.2	82.7
Tamarack	--	--	--	--	0.2	0.3	--	--	0.2	0.3	0.6	0.5	1.4	1.4	2.2	1.5
Total	225.5	60.0	162.8	53.5	241.6	69.9	107.5	46.7	737.4	114.3	2,560.7	305.4	637.0	134.6	3,935.1	347.9
Hardwoods:																
Quaking aspen	27.3	25.8	14.6	13.2	0.3	0.3	--	--	42.2	29.0	483.8	130.5	141.4	68.7	667.4	147.9
Paper birch	94.0	44.3	135.2	67.6	12.3	7.5	5.0	4.4	246.5	81.3	1,113.5	184.5	215.6	67.7	1,575.6	206.1
Balsam poplar	3.6	3.8	2.3	2.5	66.4	49.0	0.6	0.7	72.9	49.2	102.1	40.4	61.3	52.4	236.3	82.4
Total	124.8	65.5	152.1	69.5	79.1	49.6	5.6	4.4	361.6	107.7	1,699.4	231.3	418.4	110.9	2,479.3	265.9
All forest types:	350.3	99.7	314.9	97.3	320.6	93.9	113.1	48.4	1,099.0	173.3	4,260.1	403.9	1,055.4	196.5	6,414.5	464.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 22—Net volume of live trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																												All forest land
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201 Plus		Nonstocked		Unknown				
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE			
Million cubic feet																													
Softwoods:																													
White spruce	5.9	4.8	30.7	26.4	203.8	87.3	228.1	76.6	210.6	82.4	400.1	157.7	425.6	173.8	474.2	192.6	372.8	156.4	50.6	29.4	81.5	45.0	--	--	--	--	2,483.8	357.4	
Black Spruce	--	--	6.6	4.1	37.7	10.6	261.0	58.5	149.9	33.0	85.2	28.6	188.2	56.3	147.9	64.3	61.7	28.0	6.5	3.9	13.3	12.7	--	--	13.6	9.0	971.6	110.3	
Tamarack	--	--	0.1	0.1	--	--	0.2	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.3	0.3	
Total	5.9	4.8	37.5	26.7	241.5	87.6	489.3	95.8	360.4	88.1	485.3	159.8	613.8	181.5	622.1	202.5	434.5	158.8	57.1	29.6	94.8	46.7	--	--	13.6	9.0	3,455.8	361.4	
Hardwoods:																													
Alaska paper birch	23.3	13.2	131.7	50.1	343.0	115.2	568.3	173.4	434.5	140.8	182.5	105.9	107.9	57.6	67.9	45.8	171.2	126.9	--	--	--	--	--	--	12.7	13.6	2,042.9	278.4	
Quaking aspen	4.1	3.1	12.6	13.1	323.9	106.4	162.9	77.9	167.7	117.4	1.6	1.7	--	--	--	--	--	--	--	--	--	--	--	--	47.5	51.2	720.2	173.3	
Balsam poplar	--	--	21.8	17.4	12.6	10.3	97.2	71.8	63.9	66.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	195.5	99.9	
Total	27.4	13.5	166.1	54.5	679.5	157.9	828.4	199.3	666.0	194.3	184.0	105.9	107.9	57.6	67.9	45.8	171.2	126.9	--	--	--	--	--	--	60.3	64.8	2,958.7	329.6	
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
All forest types	33.2	14.3	203.6	60.1	921.0	178.7	1,317.7	218.5	1,026.4	212.3	669.3	191.5	721.8	189.9	690.0	207.2	605.7	203.2	57.1	29.6	94.8	46.7	--	--	73.8	65.4	6,414.5	464.9	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 23—Net volume of growing stock trees^a on timberland, by species and diameter class

Species		Diameter class (inches)																											
		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+		All classes	
		Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
		Million cubic feet																											
Softwoods:																													
	White spruce	118.2	29.9	217.5	55.6	194.4	49.7	191.0	53.4	132.7	46.0	97.3	32.2	65.5	28.3	43.1	22.7	48.2	33.3	20.0	21.1	--	--	--	--	--	--	1,127.9	263.9
	Black spruce	32.8	13.1	18.6	11.0	15.4	11.1	2.6	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69.4	28.1
	Tamarack	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Total	151.1	33.0	236.1	56.5	209.8	50.8	193.5	53.4	132.7	46.0	97.3	32.2	65.5	28.3	43.1	22.7	48.2	33.3	20.0	21.1	--	--	--	--	--	--	1,197.2	265.9
Hardwoods:																													
	Quaking aspen	69.7	22.4	136.2	52.6	114.3	39.9	73.6	28.5	21.4	13.2	18.4	12.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	433.5	129.5
	Paper birch	242.0	53.3	259.1	55.2	246.5	65.7	130.5	40.1	29.7	12.2	13.7	7.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	921.6	179.2
	Balsam poplar	11.0	5.0	15.9	6.9	26.4	16.8	22.5	16.5	16.1	12.3	9.0	6.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.8	56.6
	Total	322.7	58.4	411.1	79.0	387.2	81.1	226.6	55.5	67.2	21.4	41.1	15.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,455.9	236.8
All	Total	473.8	70.7	647.3	101.3	597.0	101.4	420.2	83.3	199.9	53.1	138.3	35.7	65.5	28.3	43.1	22.7	48.2	33.3	20.0	21.1	--	--	--	--	--	--	2,653.2	384.6

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 24—Net volume of live trees^a on forest land, by ownership group and land status

Ownership	Land Status													
	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Federal government:														
Bureau of Land Management	45	47	300	89	345	100	--	--	5	4	5	4	350	100
Departments of Defense and Energy	160	88	155	60	315	97	--	--	--	--	--	--	315	97
National Park Service	--	--	--	--	--	--	17	21	303	92	321	94	321	94
U.S. Fish and Wildlife Service	--	--	--	--	--	--	34	37	79	36	113	48	113	48
Total	205	100	455	107	660	139	52	42	387	99	439	105	1,099	173
State and local government	1,988	341	1,995	239	3,982	387	266	151	12	10	278	151	4,260	404
Private	511	170	544	121	1,055	196	--	--	--	--	--	--	1,055	196
All owners	2,704	388	2,994	284	5,698	439	318	156	399	99	717	184	6,414	465

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 25—Average net volume per acre of live trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																											
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+		Nonstocked		Unknown		All Classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Cubic feet per acre																												
Softwoods:																												
White spruce	1.73	1.41	9.04	7.74	59.98	25.07	67.14	22.05	61.96	23.91	117.76	45.38	125.24	50.16	139.55	55.47	109.71	45.10	14.89	8.55	23.98	13.16	--	--	--	--	730.97	87.19
Black Spruce	--	--	0.62	0.38	3.49	0.98	24.19	5.39	13.89	3.02	7.89	2.63	17.44	5.18	13.71	5.94	5.72	2.59	0.60	0.36	1.23	1.23	--	--	1.26	0.83	90.05	9.77
Tamarack	--	--	0.45	0.45	--	--	0.90	0.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.35	1.08
Total	0.41	0.33	2.60	1.85	16.75	6.05	33.95	6.62	25.01	6.09	33.67	11.07	42.58	12.57	43.16	14.03	30.14	11.01	3.96	2.05	6.58	3.24	--	--	0.94	0.62	239.75	24.60
Hardwoods:																												
Alaska paper birch	5.99	3.34	33.83	12.55	88.08	29.46	145.96	43.22	111.58	35.65	46.86	27.29	27.72	14.70	17.43	11.71	43.96	32.58	--	--	--	--	--	--	3.27	3.49	524.68	65.50
Quaking aspen	2.37	1.79	7.34	7.58	189.08	58.09	95.09	44.87	97.87	67.71	0.91	0.91	--	--	--	--	--	--	--	--	--	--	--	--	27.74	29.89	420.39	91.35
Balsam poplar	--	--	100.28	74.65	58.05	42.79	446.11	277.00	293.28	293.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	897.73	330.59
Total	4.70	2.30	28.52	9.19	116.66	26.79	142.22	33.49	114.34	33.05	31.59	18.24	18.53	9.87	11.65	7.85	29.39	21.80	--	--	--	--	--	--	10.35	11.12	507.96	52.96
Nonstocked																												
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types																												
	1.60	0.69	9.81	2.89	44.37	8.60	63.48	10.51	49.45	10.22	32.24	9.24	34.77	9.16	33.24	9.98	29.18	9.79	2.75	1.43	4.57	2.25	--	--	3.56	3.15	309.02	22.39

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 26—Average net volume per acre of live trees^a on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Cubic feet per acre</i>										
Softwoods:										
White spruce	383.02	90.06	255.34	45.26	92.61	16.62	--	--	730.97	87.19
Black Spruce	2.94	2.94	20.09	7.08	67.02	6.78	--	--	90.05	9.77
Tamarack	--	--	--	--	1.35	1.08	--	--	1.35	1.08
Total	92.49	22.41	75.23	12.62	72.02	6.33	--	--	239.75	24.60
Hardwoods:										
Alaska paper birch	94.55	42.57	385.24	58.00	44.89	10.23	--	--	524.68	65.50
Quaking aspen	27.60	27.60	358.46	91.10	34.33	16.12	--	--	420.39	91.35
Balsam poplar	712.61	362.12	174.23	101.50	10.88	10.88	--	--	897.73	330.59
Total	97.97	34.47	369.48	47.56	40.52	8.38	--	--	507.96	52.96
Nonstocked	--	--	--	--	--	--	--	--	--	--
All forest types	91.72	18.33	155.92	16.02	61.38	4.97	--	--	309.02	22.39

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 27—Average net volume per acre of live trees^a on forest land, by forest type and ownership group

Forest type	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Cubic feet per acre															
Softwoods:																
White spruce	334.8	94.4	638.6	203.7	1,063.3	200.1	1,223.5	96.5	605.0	102.4	727.6	118.9	906.7	223.5	731.0	87.2
Black Spruce	40.4	12.4	214.4	93.6	42.7	12.6	83.7	47.0	74.8	18.2	93.6	12.0	127.2	40.2	90.0	9.8
Tamarack	--	--	--	--	1.9	1.9	--	--	1.5	1.5	1.2	1.2	--	--	1.4	1.1
Total	109.8	30.4	260.4	87.8	139.7	45.2	197.7	87.2	154.6	26.2	252.1	34.6	432.3	106.4	239.7	24.6
Hardwoods:																
Alaska paper birch	380.2	154.7	541.4	272.0	222.8	167.0	95.0	95.0	371.5	113.1	581.2	88.5	491.3	147.6	524.7	65.5
Quaking aspen	305.9	297.6	--	--	4.3	4.3	--	--	134.8	131.7	475.9	125.3	460.0	183.5	420.4	91.3
Balsam poplar	--	--	--	--	898.3	453.6	--	--	670.6	395.3	641.5	83.2	2,377.9	641.6	897.7	330.6
Total	338.9	147.6	427.6	224.2	400.6	214.9	95.0	95.0	353.6	99.9	551.4	71.1	541.6	125.8	508.0	53.0
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	154.6	41.3	304.1	90.0	181.1	52.4	179.1	74.5	192.7	29.4	332.0	31.1	475.1	80.7	309.0	22.4

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all live trees >= 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 28—Average gross volume per acre of dead trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																											
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+		Nonstocked		Unknown		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Cubic feet per acre																												
Softwoods:																												
White spruce	8.21	4.21	0.45	0.42	9.91	4.89	8.75	4.10	3.00	1.56	20.41	11.64	17.22	11.47	7.02	3.69	10.52	4.24	5.95	5.79	0.84	0.61	--	--	0.38	0.38	92.67	18.14
Black Spruce	5.00	1.62	--	--	0.64	0.32	2.75	0.75	2.85	0.70	1.39	0.44	3.58	1.27	2.36	1.19	0.98	0.48	0.10	0.08	0.15	0.15	--	--	1.44	0.61	21.24	2.56
Tamarack	--	--	--	--	1.94	1.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.94	1.94
Total	5.68	1.57	0.11	0.10	2.84	1.18	4.12	1.11	2.84	0.64	5.85	2.78	6.74	2.88	3.42	1.25	3.22	1.07	1.48	1.37	0.31	0.18	--	--	1.17	0.46	37.77	4.84
Hardwoods:																												
Alaska paper birch	40.79	11.49	9.24	5.96	4.65	1.90	16.72	6.74	7.81	3.59	6.69	5.50	5.41	3.05	4.94	3.18	4.73	4.73	--	--	--	--	--	--	10.87	4.90	111.84	16.03
Quaking aspen	59.29	28.18	0.28	0.28	13.80	6.73	10.91	5.62	13.72	10.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.00	6.26	106.01	30.39
Balsam poplar	--	--	0.71	0.71	0.21	0.21	124.37	109.57	19.80	19.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.47	6.47	151.55	107.42
Total	44.70	11.24	6.29	4.00	7.17	2.43	19.03	6.40	10.00	3.99	4.47	3.68	3.62	2.05	3.30	2.13	3.16	3.16	--	--	--	--	--	--	9.86	3.78	111.61	14.52
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.81	70.82	--	--	100.81	70.82
All forest types	16.49	3.39	1.84	1.13	3.99	1.06	8.20	1.96	4.78	1.20	5.32	2.19	5.70	2.08	3.30	1.06	3.12	1.04	1.03	0.95	0.21	0.12	2.52	1.88	3.58	1.12	60.07	5.65

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 29—Average gross volume per acre of dead trees^a on forest land, by forest type and ownership group

Forest type	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and Local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Cubic feet per acre															
Softwoods:																
White spruce	19.67	7.04	156.11	74.56	127.52	45.71	146.06	109.07	71.55	21.29	102.35	26.60	78.42	20.27	92.67	18.14
Black Spruce	14.20	6.12	40.23	20.85	9.16	2.92	13.90	4.81	16.53	4.22	23.58	3.43	22.63	8.84	21.24	2.56
Tamarack	--	--	--	--	4.07	4.07	--	--	3.15	3.15	--	--	--	--	1.94	1.94
Total	15.49	5.00	53.64	21.78	20.39	7.34	27.11	11.89	24.63	4.94	43.16	7.38	44.47	10.34	37.77	4.84
Hardwoods:																
Alaska paper birch	66.59	20.19	151.47	49.41	184.46	177.94	24.17	16.26	101.01	30.25	117.15	21.08	102.53	36.39	111.84	16.03
Quaking aspen	40.94	23.57	8.80	8.80	--	--	--	--	20.16	11.88	128.58	42.27	100.85	63.94	106.01	30.39
Balsam poplar	41.71	41.71	--	--	31.94	20.62	--	--	34.42	15.43	438.36	438.36	149.34	55.41	151.55	107.42
Total	59.29	15.86	121.46	42.74	78.40	72.53	24.17	16.26	76.71	21.54	125.23	19.98	103.40	33.86	111.61	14.52
Nonstocked	23.41	23.41	--	--	--	--	--	--	19.11	19.11	148.49	108.89	--	--	100.81	70.82
All forest types	25.98	5.62	73.10	20.13	29.58	13.69	26.58	11.13	35.72	6.15	69.51	8.29	67.99	15.26	60.07	5.65

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 30—Net volume of growing stock trees^a on timberland, by species and ownership group, Tanana unit Alaska, 2018

Species	Ownership group							
	Federal government		State and local government		Private		All Owner	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>								
Softwoods:								
White spruce	89.5	48.9	778.7	234.7	259.6	115.0	1,127.9	263.9
Black spruce	4.9	3.0	51.7	26.2	12.7	9.6	69.4	28.1
Tamarack	--	--	--	--	--	--	--	--
Total	94.5	51.8	830.5	236.5	272.3	114.9	1,197.2	265.9
Hardwoods:								
Quaking aspen	0.5	0.5	360.5	122.1	72.6	45.3	433.5	129.5
Paper birch	105.6	64.6	714.4	162.4	101.7	46.1	921.6	179.2
Balsam poplar	--	--	48.0	22.1	52.8	52.1	100.8	56.6
Total	106.0	64.8	1,122.8	215.9	227.1	82.9	1,455.9	236.8
All forest types:	200.5	96.9	1,953.3	338.3	499.4	167.8	2,653.2	384.6

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes live growing stock trees of commercial species that are >= 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 31—Net cubic volume of sawtimber-size trees^a on timberland, by species and ownership group

Species	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Million cubic feet															
Softwoods:																
White spruce	26.4	27.2	33.1	19.9	--	--	--	--	59.5	33.7	566.5	180.8	166.1	82.7	792.1	200.4
Black spruce	--	--	--	--	--	--	--	--	--	--	16.1	11.6	1.8	1.9	17.9	11.7
Tamarack	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	26.4	27.2	33.1	19.9	--	--	--	--	59.5	33.7	582.6	181.3	168.0	82.8	810.1	200.8
Hardwoods:																
Quaking aspen	--	--	--	--	--	--	--	--	--	--	94.4	45.7	19.0	16.5	113.4	48.6
Paper birch	--	--	41.8	36.7	--	--	--	--	41.8	36.7	106.3	28.5	25.8	15.4	174.0	48.9
Balsam poplar	--	--	--	--	--	--	--	--	--	--	17.5	12.6	30.0	31.3	47.5	33.7
Total	--	--	41.8	36.7	--	--	--	--	41.8	36.7	218.2	64.8	74.9	38.2	334.9	83.7
All forest types	26.4	27.2	74.9	50.9	--	--	--	--	101.3	57.8	800.9	194.8	242.8	103.5	1,145.0	226.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 32—Gross volume of dead trees^a on forest land, by ownership and land status

Owner class	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Million cubic feet														
Federal government:														
Bureau of Land Management	12.9	7.6	45.2	11.7	58.2	13.8	0.3	0.3	0.4	0.3	0.7	0.4	58.9	13.7
Departments of Defense and Energy	27.8	16.0	47.9	17.4	75.7	21.2	--	--	--	--	--	--	75.7	21.2
National Park Service	--	--	--	--	--	--	17.6	21.8	34.8	11.1	52.4	24.4	52.4	24.4
U.S. Fish and Wildlife Service	--	--	--	--	--	--	0.8	0.7	16.0	7.2	16.8	7.2	16.8	7.2
Total	40.7	17.7	93.1	21.0	133.9	25.3	18.7	21.8	51.1	13.2	69.9	25.4	203.7	35.7
State and local government	377.4	84.9	497.1	72.8	874.5	107.5	14.9	9.4	2.7	2.0	17.6	9.7	892.1	107.5
Private	61.6	28.7	89.5	22.7	151.0	34.9	--	--	--	--	--	--	151.0	34.9
All owners	479.7	91.1	679.7	78.8	1,159.4	115.2	33.6	23.8	53.9	13.4	87.5	27.2	1,246.8	117.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 33—Gross volume of dead trees^a on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>										
Softwoods:										
White spruce	155.2	60.6	96.8	23.8	62.9	19.3	--	--	314.9	67.1
Black Spruce	6.2	6.0	32.7	16.0	190.2	23.9	--	--	229.1	28.8
Tamarack	--	--	--	--	0.4	0.5	--	--	0.4	0.5
Total	161.5	60.8	129.5	28.5	253.5	29.9	--	--	544.5	71.1
Hardwoods:										
Alaska paper birch	36.9	20.2	161.8	42.8	236.7	51.8	--	--	435.5	71.2
Quaking aspen	9.7	10.6	65.2	23.1	106.6	49.7	--	--	181.6	55.5
Balsam poplar	7.4	5.3	24.2	26.0	1.4	1.4	--	--	33.0	26.5
Total	54.1	23.4	251.2	53.4	344.8	71.0	--	--	650.1	91.9
Nonstocked	--	--	--	--	--	--	52.2	39.0	52.2	39.0
All forest types	215.6	65.0	380.7	59.7	598.2	75.3	52.2	39.0	1,246.8	117.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 34—Gross volume of dead trees^a on forest land, by forest type and ownership group

Forest type	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Million cubic feet															
Softwoods:																
White spruce	7.4	3.4	13.9	10.9	18.6	10.9	7.6	5.7	47.5	16.7	226.7	63.7	40.7	13.3	314.9	67.1
Black Spruce	17.4	7.8	22.4	12.3	11.3	3.8	6.5	2.7	57.5	15.2	153.4	23.3	18.3	7.7	229.1	28.8
Tamarack	--	--	--	--	0.4	0.5	--	--	0.4	0.5	--	--	--	--	0.4	0.5
Total	24.8	8.4	36.3	15.6	30.4	11.0	14.0	6.1	105.5	21.6	380.0	66.2	59.0	14.6	544.5	71.1
Hardwoods:																
Alaska paper birch	24.5	9.8	38.8	17.9	18.8	21.8	2.8	2.2	84.8	29.9	300.7	61.1	50.0	21.5	435.5	71.2
Quaking aspen	4.7	3.4	0.6	0.6	--	--	--	--	5.3	3.5	138.7	48.9	37.6	26.2	181.6	55.5
Balsam poplar	1.4	1.4	--	--	3.2	2.8	--	--	4.6	3.1	24.0	26.0	4.5	4.5	33.0	26.5
Total	30.6	11.0	39.4	17.8	22.0	22.0	2.8	2.2	94.7	30.5	463.3	80.2	92.0	33.7	650.1	91.9
Nonstocked	3.5	3.1	--	--	--	--	--	--	3.5	3.1	48.7	38.9	--	--	52.2	39.0
All forest types	58.9	13.7	75.7	21.2	52.4	24.4	16.8	7.2	203.7	35.7	892.1	107.5	151.0	34.9	1,246.8	117.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 35—Gross volume of dead trees^a on forest land, by species and ownership group

Species	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Million cubic feet															
Softwoods:																
White spruce	18.2	6.2	19.2	10.4	33.1	18.1	7.8	4.8	78.3	22.3	316.9	70.8	63.1	26.3	458.3	78.7
Black spruce	24.9	8.5	13.3	7.0	4.9	1.9	4.3	1.5	47.5	11.2	150.4	20.6	21.8	6.6	219.7	24.3
Tamarack	0.3	0.3	7.0	4.0	5.1	2.2	--	--	12.5	4.6	9.4	3.6	0.7	0.7	22.5	5.8
Total	43.5	11.2	39.5	13.1	43.1	18.1	12.2	5.0	138.3	25.4	476.7	75.8	85.5	26.5	700.5	84.1
Hardwoods:																
Quaking aspen	1.8	1.4	--	--	--	--	--	--	1.8	1.4	146.4	48.1	15.1	6.7	163.2	48.6
Paper birch	13.6	5.6	35.7	15.1	6.1	7.4	4.6	2.6	60.0	17.9	224.4	42.1	44.5	19.9	329.0	49.8
Balsam poplar	--	--	0.5	0.5	3.2	2.8	--	--	3.7	2.8	44.6	27.7	5.9	3.9	54.2	28.1
Total	15.4	6.7	36.2	15.2	9.3	7.9	4.6	2.6	65.5	18.5	415.3	68.4	65.5	21.0	546.3	73.7
All species	58.9	13.7	75.7	21.2	52.4	24.4	16.8	7.2	203.7	35.7	892.1	107.5	151.0	34.9	1,246.8	117.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 36—Gross volume of dead trees^a on forest land, by species and diameter class

Species	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+	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Million cubic feet																												
Softwoods:																												
White spruce	108.8	19.2	93.7	16.1	79.6	17.1	59.8	17.0	21.4	10.9	55.4	23.0	8.6	9.0	--	--	31.1	23.9	--	--	--	--	--	--	--	--	458.3	78.7
Black spruce	163.6	17.5	42.7	7.4	4.0	3.1	4.9	3.4	4.5	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	219.7	24.3
Tamarack	14.8	4.1	7.7	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22.5	5.8
Total	287.2	27.3	144.1	18.2	83.6	17.7	64.6	17.4	25.9	11.7	55.4	23.0	8.6	9.0	--	--	31.1	23.9	--	--	--	--	--	--	--	--	700.5	84.1
Hardwoods:																												
Quaking aspen	75.1	18.5	50.6	19.4	22.3	12.9	10.4	5.6	4.7	3.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	163.2	48.6
Paper birch	106.5	17.8	95.5	18.8	65.3	15.2	36.3	10.5	25.5	11.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	329.0	49.8
Balsam poplar	4.3	1.9	11.2	4.8	8.9	4.2	7.5	8.1	11.7	12.6	10.6	7.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54.2	28.1
Total	185.9	25.4	157.3	27.0	96.6	20.3	54.1	14.7	41.9	17.5	10.6	7.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	546.3	73.7
All species	473.1	39.8	301.3	32.6	180.1	28.0	118.7	23.3	67.7	20.9	66.1	26.2	8.6	9.0	--	--	31.1	23.9	--	--	--	--	--	--	--	--	1,246.8	117.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 37—Gross volume of dead trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																								Nonstocked		Unknown		All forest land	
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+									
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
Million cubic feet																														
Softwoods:																														
White spruce	27.9	14.5	1.5	1.4	33.7	16.9	29.7	14.1	10.2	5.4	69.4	40.0	58.5	39.3	23.9	12.7	35.7	14.8	20.2	19.8	2.8	2.1	--	--	1.3	1.4	314.9	67.1		
Black Spruce	54.0	17.6	--	--	6.9	3.5	29.7	8.1	30.7	7.6	15.0	4.8	38.6	13.7	25.5	12.9	10.6	5.2	1.1	0.9	1.6	1.5	--	--	15.5	6.6	229.1	28.8		
Tamarack	--	--	--	--	0.4	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.4	0.5		
Total	81.9	22.8	1.5	1.4	41.0	17.2	59.4	16.0	40.9	9.3	84.3	40.2	97.1	41.6	49.3	18.0	46.4	15.5	21.3	19.8	4.4	2.6	--	--	16.8	6.7	544.5	71.1		
Hardwoods:																														
Alaska paper birch	158.8	46.8	36.0	23.5	18.1	7.4	65.1	26.6	30.4	14.1	26.0	21.5	21.1	11.9	19.3	12.5	18.4	15.1	--	--	--	--	--	--	42.3	19.5	435.5	71.2		
Quaking aspen	101.6	49.7	0.5	0.5	23.6	11.9	18.7	9.6	23.5	18.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.7	10.8	181.6	55.5		
Balsam poplar	--	--	0.2	0.2	0.0	0.0	27.1	26.1	4.3	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	1.4	33.0	26.5		
Total	260.4	67.6	36.6	23.5	41.8	14.2	110.9	37.5	58.2	23.4	26.0	21.5	21.1	11.9	19.3	12.5	18.4	15.1	--	--	--	--	--	--	57.4	22.3	650.1	91.9		
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52.2	39.0	--	--	52.2	39.0		
All forest types	342.3	70.5	38.2	23.5	82.8	21.9	170.3	40.6	99.2	25.0	110.4	45.5	118.2	43.2	68.6	21.9	64.8	21.6	21.3	19.8	4.4	2.6	52.2	39.0	74.3	23.3	1,246.8	117.9		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height.

Table 38—Net board-foot volume (Scribner rule) of growing stock sawtimber trees^a on timberland, by forest type and ownership group

Forest type	Other federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Million board feet															
Softwoods:																
White spruce	--	--	40.7	35.7	--	--	--	--	40.7	35.7	1,407.8	599.4	441.3	292.8	1,889.9	663.7
Black Spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tamarack	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	40.7	35.7	--	--	--	--	40.7	35.7	1,407.8	599.4	441.3	292.8	1,889.9	663.7
Hardwoods:																
Alaska paper birch	78.7	86.8	189.0	165.9	--	--	--	--	267.6	187.3	1,024.9	320.2	160.1	128.6	1,452.6	392.4
Quaking aspen	4.6	5.3	--	--	--	--	--	--	4.6	5.3	264.7	146.1	73.1	57.0	342.4	156.9
Balsam poplar	--	--	--	--	--	--	--	--	--	--	49.9	42.6	131.6	137.4	181.6	143.8
Total	83.2	87.0	189.0	165.9	--	--	--	--	272.2	187.3	1,339.6	356.0	364.9	196.5	1,976.6	447.6
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	83.2	87.0	229.6	167.0	--	--	--	--	312.9	188.3	2,747.4	694.3	806.2	350.5	3,866.5	795.6

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 39—Net board-foot volume (Scribner rule) of growing stock sawtimber trees^a on timberland, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet</i>										
Softwoods:										
White spruce	1,588.6	639.5	247.5	191.9	53.7	38.5	--	--	1,889.9	663.7
Black Spruce	--	--	--	--	--	--	--	--	--	--
Tamarack	--	--	--	--	--	--	--	--	--	--
Total	1,588.6	639.5	247.5	191.9	53.7	38.5	--	--	1,889.9	663.7
Hardwoods:										
Alaska paper birch	244.7	170.2	1,203.1	353.9	4.9	5.1	--	--	1,452.6	392.4
Quaking aspen	125.5	136.0	191.3	80.3	25.6	23.4	--	--	342.4	156.9
Balsam poplar	169.5	143.4	12.0	13.0	--	--	--	--	181.6	143.8
Total	539.7	268.6	1,406.4	363.0	30.5	24.0	--	--	1,976.6	447.6
Nonstocked	--	--	--	--	--	--	--	--	--	--
All forest types	2,128.3	692.6	1,653.9	410.3	84.2	45.3	--	--	3,866.5	795.6

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 40—Net board-foot volume (Scribner rule) of growing stock sawtimber trees^a on timberland, by species and diameter class

Species	Diameter class (inches)																							
	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+		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Million board feet																								
Softwoods:																								
White spruce	472.9	122.9	556.4	157.5	438.0	154.6	375.1	124.4	277.3	120.0	196.7	104.5	245.3	168.0	117.2	123.4	--	--	--	--	--	--	2,678.8	709.5
Black spruce	36.5	26.6	6.7	7.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	43.2	28.4
Tamarack	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	509.3	125.7	563.1	157.5	438.0	154.6	375.1	124.4	277.3	120.0	196.7	104.5	245.3	168.0	117.2	123.4	--	--	--	--	--	--	2,722.0	710.5
Hardwoods:																								
Quaking aspen	--	--	222.7	88.0	74.6	47.7	83.3	54.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	380.6	171.0
Paper birch	--	--	426.0	133.5	111.7	46.2	51.1	28.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	588.7	167.6
Balsam poplar	--	--	77.3	56.1	59.9	46.0	37.8	28.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	175.1	122.5
Total	--	--	726.1	180.1	246.2	79.3	172.2	66.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,144.5	292.0
All species	509.3	125.7	1,289.2	258.3	684.2	182.9	547.3	140.8	277.3	120.0	196.7	104.5	245.3	168.0	117.2	123.4	--	--	--	--	--	--	3,866.5	795.6

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 41—Net board-foot volume (international ¼-inch rule) of growing stock sawtimber trees^a on timberland, by species and diameter class

Species	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+			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Million board feet																								
Softwoods:																								
White spruce	804.1	207.7	885.5	249.5	666.4	233.6	539.8	178.9	385.7	166.8	266.0	141.0	318.8	219.0	144.6	152.2	--	--	--	--	--	--	4,010.9	1,043.6
Black spruce	62.5	45.5	11.1	11.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73.7	48.3
Tamarack	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	866.6	212.4	896.6	249.7	666.4	233.6	539.8	178.9	385.7	166.8	266.0	141.0	318.8	219.0	144.6	152.2	--	--	--	--	--	--	4,084.6	1,045.3
Hardwoods:																								
Quaking aspen	--	--	329.7	129.4	105.4	66.6	108.6	71.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	543.7	240.5
Paper birch	--	--	615.2	191.6	154.1	63.6	70.6	39.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	839.9	238.3
Balsam poplar	--	--	115.2	84.3	84.3	64.7	50.1	37.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	249.7	175.7
Total	--	--	1,060.1	261.9	343.9	110.4	229.3	87.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,633.3	414.1
All species	866.6	212.4	1,956.8	391.0	1,010.3	271.1	769.1	199.0	385.7	166.8	266.0	141.0	318.8	219.0	144.6	152.2	--	--	--	--	--	--	5,717.8	1,165.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 42—Net board-foot volume (international ¼-inch rule) of growing stock sawtimber trees^a on timberland, by species and ownership group

Species	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet</i>																
Softwoods:																
White spruce	128.5	133.7	142.2	84.8	--	--	--	--	270.7	158.3	2,914.8	949.8	825.4	419.5	4,010.9	1,043.6
Black spruce	--	--	--	--	--	--	--	--	--	--	66.4	47.7	7.3	7.7	73.7	48.3
Tamarack	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	128.5	133.7	142.2	84.8	--	--	--	--	270.7	158.3	2,981.2	951.8	832.7	419.6	4,084.6	1,045.3
Hardwoods:																
Quaking aspen	--	--	--	--	--	--	--	--	--	--	457.5	228.5	86.2	75.0	543.7	240.5
Paper birch	--	--	204.0	179.1	--	--	--	--	204.0	179.1	510.8	137.2	125.1	76.8	839.9	238.3
Balsam poplar	--	--	--	--	--	--	--	--	--	--	93.7	66.1	156.0	162.8	249.7	175.7
Total	--	--	204.0	179.1	--	--	--	--	204.0	179.1	1,062.0	319.3	367.3	193.6	1,633.3	414.1
All species	128.5	133.7	346.2	244.4	--	--	--	--	474.7	278.6	4,043.2	1,013.9	1,200.0	519.1	5,717.8	1,165.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 43—Average net board-foot volume per acre (Scribner rule) of growing stock sawtimber trees^a on timberland, by forest type and ownership group

Forest type	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Board feet per acre															
Softwoods:																
White spruce	--	--	972.22	972.22	--	--	--	--	972.22	972.22	4,839.91	1,421.88	4,570.31	1,570.48	4,402.52	1,072.43
Black Spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tamarack	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	972.22	972.22	--	--	--	--	972.22	972.22	4,350.14	1,341.35	4,570.31	1,570.48	4,090.45	1,028.88
Hardwoods:																
Alaska paper birch	1,429.72	1,429.72	1,825.54	1,825.54	--	--	--	--	1,688.19	898.55	863.22	243.71	779.32	566.71	936.42	225.70
Quaking aspen	188.72	188.72	--	--	--	--	--	--	78.95	78.95	503.43	261.66	360.72	241.77	435.32	187.13
Balsam poplar	--	--	--	--	--	--	--	--	--	--	913.16	369.28	6,122.94	6,122.94	2,384.12	1,383.65
Total	1,049.56	861.89	1,376.46	1,376.46	--	--	--	--	1,256.77	713.64	757.74	184.60	849.25	410.95	818.80	168.31
Nonstocked																
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	687.26	621.60	1,282.09	778.50	--	--	--	--	1,042.13	534.61	1,292.75	297.07	1,532.15	570.88	1,309.93	243.46

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 board feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 44—Aboveground biomass of live trees^a on forest land, by ownership and land status

Ownership	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Thousand tons														
Federal government:														
Bureau of Land Management	1,624	1,629	14,505	3,228	16,128	3,573	7	8	908	523	916	523	17,044	3,595
Departments of Defense and Energy	6,116	2,988	10,317	2,492	16,433	3,264	--	--	--	--	--	--	16,433	3,264
National Park Service	--	--	--	--	--	--	704	691	14,821	2,058	15,525	2,102	15,525	2,102
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1,437	1,282	5,939	1,989	7,376	2,213	7,376	2,213
Total	7,740	3,403	24,821	4,076	32,561	4,839	2,148	1,456	21,668	2,823	23,816	2,991	56,377	5,552
State and local government	60,215	8,987	114,118	7,556	174,333	10,309	6,485	3,533	667	349	7,152	3,550	181,486	10,501
Private	14,261	4,313	23,056	3,495	37,317	4,965	--	--	91	94	91	94	37,408	4,965
All owners	82,216	10,302	161,996	9,010	244,212	11,561	8,633	3,821	22,426	2,846	31,059	4,643	275,271	12,008

Note: Totals may be off due to rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inch diameter at breast height, consisting of growing stock, rough cull and rotten cull trees. Aboveground biomass from ground to tip, includes stem wood, bark and branches; calculated with regional biomass equations.

Table 45—Aboveground biomass of live trees^a on forest land, by forest type and land status

Forest type	Land status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Softwoods:														
White spruce	22,641	6,651	38,888	5,689	61,529	8,491	4,293	3,072	5,291	1,829	9,584	3,550	71,113	9,151
Black Spruce	--	--	88,758	6,083	88,758	6,083	--	--	13,062	2,026	13,062	2,026	101,820	6,368
Tamarack	212	215	263	218	475	307	--	--	52	38	52	38	527	309
Total	22,853	6,654	127,909	7,498	150,762	9,234	4,293	3,072	18,405	2,391	22,698	3,817	173,460	9,811
Hardwoods:														
Alaska paper birch	43,615	7,310	24,886	4,951	68,501	8,231	4,174	2,243	1,878	1,157	6,052	2,524	74,553	8,370
Quaking aspen	13,125	3,729	8,824	3,060	21,949	4,629	165	141	--	--	165	141	22,114	4,631
Balsam poplar	2,623	1,736	354	384	2,977	1,768	--	--	2,141	1,506	2,141	1,506	5,118	2,323
Total	59,363	8,105	34,065	5,924	93,428	9,083	4,339	2,247	4,019	1,899	8,358	2,941	101,786	9,244
Nonstocked	--	--	22	15	22	15	--	--	3	3	3	3	25	16
All forest types	82,216	10,302	161,996	9,010	244,212	11,561	8,633	3,821	22,426	2,846	31,059	4,643	275,271	12,008

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees >= 1 inch diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 46—Aboveground biomass of dead trees^a on forest land, by ownership and land status

Owner class	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Other federal government:														
Bureau of Land Management	559	323	3,528	666	4,087	717	150	160	33	23	183	160	4,270	733
Departments of Defense and Energy	436	246	2,633	996	3,069	977	--	--	--	--	--	--	3,069	977
National Park Service	--	--	--	--	--	--	211	228	2,381	332	2,592	369	2,592	369
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16	14	211	89	227	90	227	90
Total	995	406	6,161	1,198	7,156	1,212	376	279	2,625	344	3,002	408	10,158	1,274
State and local government:	6,702	1,517	19,207	1,654	25,909	2,124	212	161	395	190	607	248	26,516	2,121
Private:	1,671	806	3,168	573	4,839	917	--	--	7	7	7	7	4,846	917
All owners	9,368	1,762	28,536	2,102	37,903	2,581	589	322	3,027	393	3,615	478	41,519	2,608

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all dead trees >= 1 inch in diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 47—Aboveground biomass of dead trees^a on forest land, by forest type and land status

Forest type	Land Status													
	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Softwoods:														
White spruce	1,440	659	3,835	794	5,275	1,020	343	226	438	209	781	305	6,055	1,060
Black Spruce	--	--	14,600	1,382	14,600	1,382	--	--	1,985	313	1,985	313	16,586	1,416
Tamarack	--	--	43	45	43	45	--	--	242	137	242	137	285	144
Total	1,440	659	18,478	1,536	19,918	1,635	343	226	2,665	366	3,008	426	22,926	1,678
Hardwoods:														
Alaska paper birch	2,495	476	5,937	1,343	8,432	1,406	218	228	119	72	337	239	8,768	1,426
Quaking aspen	4,077	1,298	2,789	820	6,866	1,518	28	25	14	12	42	28	6,908	1,518
Balsam poplar	176	140	58	43	234	145	--	--	49	39	49	39	282	150
Total	6,748	1,376	8,783	1,560	15,531	2,028	246	229	181	83	427	244	15,958	2,041
Nonsotcked	1,180	905	1,274	488	2,454	1,027	--	--	180	135	180	135	2,634	1,036
All forest types	9,368	1,762	28,536	2,102	37,903	2,581	589	322	3,027	393	3,615	478	41,519	2,608

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 48—Aboveground biomass of live trees^a on forest land, by forest type and ownership group

Forest type	Ownership Group															
	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Thousand tons															
Softwoods:																
White spruce	4,734	1,856	2,492	1,853	3,993	1,674	2,021	1,380	13,240	3,372	44,765	7,673	13,109	3,838	71,113	9,151
Black Spruce	5,729	1,360	8,560	2,483	8,164	1,250	3,692	1,549	26,145	3,383	67,048	5,170	8,626	1,872	101,820	6,368
Tamarack	--	--	248	218	52	38	--	--	301	221	227	216	--	--	527	309
Total	10,463	2,211	11,301	2,790	12,210	1,733	5,713	1,947	39,686	4,249	112,039	8,249	21,735	3,856	173,460	9,811
Hardwoods:																
Alaska paper birch	5,639	2,516	5,123	2,606	1,016	740	1,663	1,139	13,441	3,864	52,142	7,220	8,970	2,803	74,553	8,370
Quaking aspen	935	927	9	9	158	141	--	--	1,103	938	16,079	4,092	4,933	2,262	22,114	4,631
Balsam poplar	--	--	--	--	2,141	1,506	--	--	2,141	1,506	1,207	912	1,770	1,527	5,118	2,323
Total	6,574	2,970	5,132	2,606	3,315	1,682	1,663	1,139	16,685	4,439	69,428	7,833	15,673	3,832	101,786	9,244
Nonstocked	7	6	--	--	--	--	--	--	7	6	18	14	--	--	25	16
All forest types	17,044	3,595	16,433	3,264	15,525	2,102	7,376	2,213	56,377	5,552	181,486	10,501	37,408	4,965	275,271	12,008

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all live trees >= 1 inch diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 49—Aboveground biomass of dead trees^a on forest land, by forest type and ownership group

Forest type	Ownership Group															
	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Thousand tons															
Softwoods:																
White spruce	389	187	308	228	352	194	83	80	1,131	358	4,098	961	826	275	6,055	1,060
Black Spruce	2,254	602	939	283	1,781	308	113	42	5,086	731	10,283	1,163	1,217	358	16,586	1,416
Tamarack	--	--	--	--	140	84	--	--	140	84	146	116	--	--	285	144
Total	2,643	623	1,246	333	2,272	337	195	87	6,357	782	14,526	1,434	2,043	417	22,926	1,678
Hardwoods:																
Alaska paper birch	913	343	1,465	1,005	229	229	31	21	2,638	1,086	5,145	858	985	355	8,768	1,426
Quaking aspen	236	179	145	140	42	28	--	--	424	229	4,759	1,242	1,725	846	6,908	1,518
Balsam poplar	25	24	--	--	49	39	--	--	74	46	115	124	94	73	282	150
Total	1,175	392	1,610	1,014	320	234	31	21	3,136	1,112	10,019	1,471	2,803	895	15,958	2,041
Nonstocked	452	257	213	187	--	--	--	--	664	317	1,970	986	--	--	2,634	1,036
All forest types	4,270	733	3,069	977	2,592	369	227	90	10,158	1,274	26,516	2,121	4,846	917	41,519	2,608

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees >= 1 inch in diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 50—Aboveground biomass of live trees^a on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>										
Softwoods:										
White spruce	31,367	7,671	24,831	4,752	14,916	3,015	--	--	71,113	9,151
Black Spruce	844	813	8,091	2,724	92,885	5,856	--	--	101,820	6,368
Tamarack	--	--	--	--	527	309	--	--	527	309
Total	32,211	7,698	32,922	5,421	108,328	6,145	--	--	173,460	9,811
Hardwoods:										
Alaska paper birch	9,406	4,234	47,769	7,369	17,379	3,299	--	--	74,553	8,370
Quaking aspen	976	1,057	16,678	4,411	4,460	1,626	--	--	22,114	4,631
Balsam poplar	3,590	2,152	1,431	897	97	87	--	--	5,118	2,323
Total	13,971	4,941	65,878	8,360	21,936	3,634	--	--	101,786	9,244
Nonstocked	--	--	--	--	--	--	25	16	25	16
All forest types	46,182	9,118	98,799	9,665	130,264	6,754	25	16	275,271	12,008

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees >= 1 inch diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 51—Aboveground biomass of dead trees^a on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>										
Softwoods:										
White spruce	2,244	863	1,608	361	2,203	538	--	--	6,055	1,060
Black Spruce	138	133	628	287	15,820	1,395	--	--	16,586	1,416
Tamarack	--	--	--	--	285	144	--	--	285	144
Total	2,382	871	2,236	460	18,309	1,457	--	--	22,926	1,678
Hardwoods:										
Alaska paper birch	272	149	1,883	424	6,613	1,349	--	--	8,768	1,426
Quaking aspen	89	97	1,625	540	5,193	1,426	--	--	6,908	1,518
Balsam poplar	105	75	152	128	25	24	--	--	282	150
Total	467	192	3,660	676	11,832	1,932	--	--	15,958	2,041
Nonstocked	--	--	--	--	--	--	2,634	1,036	2,634	1,036
All forest types	2,848	891	5,896	802	30,141	2,281	2,634	1,036	41,519	2,608

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 1 inch diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 52—Aboveground biomass of live trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																								Nonstocked		Unknown		All forest land	
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+									
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE				
Thousand tons																														
Softwoods:																														
White spruce	260	206	1,180	761	6,835	2,750	8,221	2,393	6,999	2,533	10,910	3,953	11,296	4,214	12,637	4,831	9,253	3,729	1,390	749	2,124	1,136	--	--	8	6	71,113	9,151		
Black Spruce	250	88	2,645	932	8,266	1,897	27,888	4,041	18,689	3,204	10,700	2,133	14,838	3,279	9,550	2,632	5,469	2,005	1,355	639	499	478	--	--	1,670	897	101,820	6,368		
Tamarack	--	--	461	306	17	14	26	32	24	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	527	309		
Total	510	224	4,285	1,238	15,118	3,241	36,135	4,625	25,712	4,011	21,610	4,434	26,134	5,253	22,188	5,457	14,722	4,219	2,746	982	2,622	1,231	--	--	1,678	897	173,460	9,811		
Hardwoods:																														
Alaska paper birch	1,351	487	10,095	2,570	12,528	3,966	20,876	5,387	13,856	4,087	4,920	2,880	3,727	1,830	2,115	1,422	4,614	3,344	--	--	--	--	--	--	470	394	74,553	8,370		
Quaking aspen	475	217	1,546	966	9,312	2,967	5,314	2,313	4,425	2,909	58	62	--	--	--	--	--	--	--	--	--	--	--	--	--	984	1,057	22,114	4,631	
Balsam poplar	--	--	906	699	519	424	2,278	1,610	1,416	1,477	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5,118	2,323		
Total	1,826	530	12,547	2,815	22,359	4,969	28,468	5,956	19,697	5,206	4,978	2,881	3,727	1,830	2,115	1,422	4,614	3,344	--	--	--	--	--	--	--	--	1,454	1,437	101,786	9,244
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25	16	--	--	25	16		
All forest types	2,337	573	16,832	3,017	37,477	5,867	64,602	7,358	45,409	6,495	26,588	5,278	29,861	5,530	24,303	5,618	19,336	5,379	2,746	982	2,622	1,231	25	16	3,132	1,693	275,271	12,008		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 53—Aboveground biomass of dead trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																								Nonstocked		Unknown		All forest land	
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+									
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE				
Thousand tons																														
Softwoods:																														
White spruce	864	379	26	23	578	284	719	282	224	99	1,095	621	918	570	472	183	633	252	176	130	47	36	--	--	302	184	6,055	1,060		
Black Spruce	4,944	1,033	268	125	840	309	2,643	570	1,756	364	1,007	238	1,413	366	1,164	356	461	173	44	32	33	31	--	--	2,013	577	16,586	1,416		
Tamarack	83	74	--	--	9	11	74	59	18	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	103	107	285	144		
Total	5,891	1,099	294	127	1,427	417	3,436	628	1,997	377	2,102	661	2,331	675	1,636	398	1,095	300	221	134	80	47	--	--	2,417	613	22,926	1,678		
Hardwoods:																														
Alaska paper birch	3,282	760	480	254	426	153	882	278	578	195	132	111	330	195	165	105	118	92	--	--	--	--	--	--	2,376	1,097	8,768	1,426		
Quaking aspen	4,452	1,406	91	53	740	341	609	293	455	345	34	36	--	--	--	--	--	--	--	--	--	--	--	--	528	232	6,908	1,518		
Balsam poplar	--	--	32	35	5	5	158	130	61	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25	24	282	150		
Total	7,733	1,577	603	262	1,171	372	1,649	411	1,094	400	166	117	330	195	165	105	118	92	--	--	--	--	--	--	2,929	1,120	15,958	2,041		
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,634	1,036	--	--	2,634	1,036		
All forest types	13,624	1,868	897	291	2,598	552	5,085	745	3,091	544	2,268	671	2,662	701	1,802	411	1,212	313	221	134	80	47	2,634	1,036	5,346	1,266	41,519	2,608		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees >= 1 inch in diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 54—Aboveground biomass of live trees^a by forest type and ecosection^b

Forest type	Ecosection													
	Yukon River Lowlands		Tanana-Kuskokwim Lowlands		Kuskokwim Mountains		Yukon-Tanana Uplands		Ray Mountains		Alaska Range		All ecosections	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Softwoods:														
White spruce	143	149	25,303	4,815	--	--	33,122	7,469	3,960	2,055	8,584	2,699	71,113	9,151
Black spruce	824	574	37,013	4,468	3,147	1,066	46,591	4,870	8,383	2,322	4,658	1,560	100,616	6,360
Tamarack	--	--	527	309	--	--	--	--	--	--	--	--	527	309
Total	967	593	62,843	6,358	3,147	1,066	79,714	8,507	12,343	3,100	13,242	3,080	172,257	9,821
Hardwoods:														
Aspen	--	--	6,699	2,372	583	649	12,672	3,990	687	494	828	873	21,469	4,632
Paper birch	1,095	1,074	21,388	4,992	4,635	2,374	36,087	5,967	8,985	3,193	2,362	1,546	74,553	8,370
Balsam poplar	--	--	4,697	2,285	--	--	--	--	--	--	--	--	5,118	2,323
Total	1,095	1,074	32,784	5,894	5,219	2,461	48,759	7,061	9,673	3,222	3,190	1,775	101,141	9,277
Nonstocked	7	6	--	--	16	14	3	3	--	--	--	--	25	16
All forest types	2,069	1,227	95,627	8,222	8,381	2,674	128,475	10,830	22,016	4,283	16,432	3,552	273,422	12,067

Note: Totals may be off due to rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inch diameter at breast height, consisting of growing stock, rough cull and rotten cull trees from ground to tip, includes stem wood, bark and branches; calculated with regional biomass equations.

^b From Nowacki et al. 2001.

Table 55—Aboveground biomass of live trees^a on forest land, by species and diameter class

Species	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+		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		Total	SE	
Thousand tons																																
Softwoods:																																
White spruce	4,639	567	9,348	994	13,656	1,318	15,437	1,622	13,043	1,568	11,401	1,689	8,208	1,653	4,763	1,142	2,515	782	975	515	2,782	1,064	462	486	--	--	--	--	--	--	87,231	8,409
Black spruce	38,365	2,186	36,071	2,507	17,285	1,690	5,723	940	1,714	512	76	81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	99,235	5,550
Tamarack	1,058	280	191	101	44	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,293	342
Total	44,062	2,229	45,609	2,622	30,986	2,050	21,160	1,833	14,758	1,641	11,478	1,690	8,208	1,653	4,763	1,142	2,515	782	975	515	2,782	1,064	462	486	--	--	--	--	--	--	187,758	9,020
Hardwoods:																																
Quaking aspen	956	292	2,157	598	3,941	826	5,426	1,430	3,395	938	1,730	597	591	351	369	241	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18,565	3,575
Paper birch	4,907	646	12,253	1,547	14,069	1,772	12,415	1,718	10,378	1,891	5,898	1,489	1,969	717	634	286	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62,523	6,286
Balsam poplar	565	259	466	199	901	269	955	268	947	387	1,041	492	664	392	363	186	127	137	--	--	395	324	--	--	--	--	--	--	--	--	6,424	1,910
Total	6,429	742	14,875	1,648	18,911	1,978	18,796	2,262	14,720	2,171	8,668	1,738	3,225	876	1,366	405	127	137	--	--	395	324	--	--	--	--	--	--	--	--	87,512	7,276
All forest types	50,491	2,397	60,485	3,217	49,896	2,967	39,956	3,055	29,478	2,853	20,146	2,636	11,433	1,897	6,130	1,248	2,642	790	975	515	3,178	1,233	462	486	--	--	--	--	--	--	275,271	12,008

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all live trees >= 1 inch diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 56—Aboveground biomass of dead trees^a on forest land, by species and diameter class

Species	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+		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
Thousand tons																																
Softwoods:																																
White spruce	413	71	1,268	319	1,897	349	1,462	272	1,211	269	847	250	255	148	746	298	150	157	--	--	70	55	--	--	--	--	--	--	--	--	8,320	1,378
Black spruce	7,927	678	7,933	850	3,784	408	901	155	89	68	105	74	100	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20,839	1,629
Tamarack	1,887	367	678	136	277	76	133	46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,974	452	
Total	10,228	772	9,878	932	5,957	561	2,497	324	1,300	285	952	261	355	176	746	298	150	157	--	--	70	55	--	--	--	--	--	--	--	32,133	2,167	
Hardwoods:																																
Quaking aspen	429	107	1,021	214	1,195	297	707	289	328	192	50	28	43	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3,772	856	
Paper birch	463	107	1,191	472	1,222	209	837	160	550	149	298	92	352	183	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4,913	816	
Balsam poplar	45	24	122	69	110	51	158	75	121	60	17	18	68	74	60	43	--	--	--	--	--	--	--	--	--	--	--	--	--	701	231	
Total	936	152	2,335	523	2,526	368	1,702	334	999	248	365	100	463	201	60	43	--	--	--	--	--	--	--	--	--	--	--	--	--	9,386	1,200	
All forest types	11,164	789	12,213	1,180	8,484	718	4,198	467	2,299	381	1,317	283	818	265	806	316	150	157	--	--	70	55	--	--	--	--	--	--	--	41,519	2,608	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees >= 1 inch in diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 57—Average aboveground biomass per acre of live trees^a on forest land, by forest type and ownership group

Forest type	Federal government															
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Tons per acre</i>																
Softwoods:																
White spruce	12.55	3.30	27.92	11.58	27.34	4.21	39.07	1.74	19.93	3.26	20.21	2.79	25.25	5.23	20.93	2.09
Black Spruce	4.69	0.90	15.38	3.34	6.61	0.80	7.93	2.78	7.51	0.82	10.31	0.67	10.69	1.88	9.44	0.50
Tamarack	--	--	7.92	7.92	0.49	0.24	--	--	2.16	1.34	2.61	1.97	--	--	2.33	1.13
Total	6.54	1.14	16.69	3.25	8.20	1.07	11.04	3.25	9.26	0.87	12.72	0.87	16.39	2.56	12.03	0.63
Hardwoods:																
Alaska paper birch	15.34	5.56	20.02	7.69	9.96	5.25	14.56	7.61	16.00	3.64	20.32	2.41	18.40	4.00	19.15	1.83
Quaking aspen	8.20	7.97	0.14	0.14	1.99	1.99	--	--	4.22	3.52	14.90	3.17	13.23	4.69	12.91	2.32
Balsam poplar	--	--	--	--	21.52	8.61	--	--	16.07	8.04	22.09	1.48	59.19	7.21	23.50	6.89
Total	12.75	4.91	15.84	6.53	11.81	4.52	14.56	7.61	13.52	2.95	18.76	1.89	17.61	3.11	17.47	1.41
Nonstocked	0.04	0.04	--	--	--	--	--	--	0.04	0.04	0.06	0.04	--	--	0.05	0.03
All forest types	7.52	1.42	15.87	2.85	8.77	1.11	11.68	3.06	9.89	0.90	14.14	0.79	16.84	1.94	13.26	0.58

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees >= 1 inch in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 58—Average aboveground biomass per acre of dead trees^a on forest land, by forest type and ownership group

Forest type	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Tons per acre</i>																
Softwoods:																
White spruce	1.03	0.41	3.45	1.46	2.41	0.75	1.60	1.42	1.70	0.42	1.85	0.39	1.59	0.42	1.78	0.27
Black Spruce	1.84	0.43	1.69	0.43	1.44	0.19	0.24	0.07	1.46	0.18	1.58	0.16	1.51	0.37	1.54	0.12
Tamarack	--	--	--	--	1.30	0.39	--	--	1.00	0.38	1.68	0.97	--	--	1.26	0.46
Total	1.65	0.34	1.84	0.41	1.53	0.19	0.38	0.16	1.48	0.16	1.65	0.15	1.54	0.28	1.59	0.11
Hardwoods:																
Alaska paper birch	2.48	0.65	5.72	3.47	2.25	1.79	0.27	0.14	3.14	1.16	2.00	0.27	2.02	0.55	2.25	0.31
Quaking aspen	2.07	1.18	2.13	2.13	0.53	0.11	--	--	1.62	0.68	4.41	0.95	4.63	1.85	4.03	0.74
Balsam poplar	0.75	0.75	--	--	0.49	0.27	--	--	0.56	0.20	2.10	2.10	3.14	0.31	1.30	0.53
Total	2.28	0.54	4.97	2.79	1.14	0.73	0.27	0.14	2.54	0.82	2.71	0.34	3.15	0.87	2.74	0.31
Nonstocked	2.99	1.05	6.23	6.23	--	--	--	--	3.58	0.98	6.01	2.37	--	--	5.08	1.57
All forest types	1.88	0.29	2.96	0.93	1.46	0.19	0.36	0.14	1.78	0.21	2.07	0.16	2.18	0.39	2.00	0.12

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees >= 1 inch in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 59—Average aboveground biomass per acre of live trees^a on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Tons per acre</i>										
Softwoods:										
White spruce	48.48	6.36	24.20	2.54	8.65	1.34	--	--	20.93	2.09
Black Spruce	99.96	99.96	32.09	3.79	8.82	0.47	--	--	9.44	0.50
Tamarack	--	--	--	--	2.33	1.13	--	--	2.33	1.13
Total	49.15	6.30	25.76	2.21	8.68	0.43	--	--	12.03	0.63
Hardwoods:										
Alaska paper birch	60.67	10.55	42.04	2.85	6.68	1.09	--	--	19.15	1.83
Quaking aspen	47.61	47.61	38.28	4.68	3.55	1.16	--	--	12.91	2.32
Balsam poplar	40.32	9.29	21.91	4.51	1.53	1.53	--	--	23.50	6.89
Total	52.81	7.76	40.23	2.48	5.59	0.82	--	--	17.47	1.41
Nonstocked	--	--	--	--	--	--	0.05	0.03	0.05	0.03
All forest types	50.20	5.01	33.89	1.82	7.94	0.37	0.05	0.03	13.26	0.58

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees >= 1 inch in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 60—Average aboveground biomass per acre of dead trees^a on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Tons per acre</i>										
Softwoods:										
White spruce	3.47	1.11	1.57	0.25	1.28	0.27	--	--	1.78	0.27
Black Spruce	16.30	16.30	2.49	0.79	1.50	0.12	--	--	1.54	0.12
Tamarack	--	--	--	--	1.26	0.46	--	--	1.26	0.46
Total	3.63	1.10	1.75	0.26	1.47	0.11	--	--	1.59	0.11
Hardwoods:										
Alaska paper birch	1.76	0.44	1.66	0.28	2.54	0.45	--	--	2.25	0.31
Quaking aspen	4.36	4.36	3.73	0.88	4.13	0.96	--	--	4.03	0.74
Balsam poplar	1.18	0.58	2.33	1.29	0.40	0.40	--	--	1.30	0.53
Total	1.76	0.39	2.24	0.32	3.02	0.43	--	--	2.74	0.31
Nonstocked	--	--	--	--	--	--	5.08	1.57	5.08	1.57
All forest types	3.10	0.80	2.02	0.22	1.84	0.13	5.08	1.57	2.00	0.12

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees >= 1 inch in diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 61—Average aboveground biomass per acre of live trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																								Nonstocked		Unknown		All forest land	
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+									
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE				
Tons per acre																														
Softwoods:																														
White spruce	1.5	1.0	5.6	3.1	17.2	5.0	17.7	3.3	22.4	4.8	27.8	6.6	28.8	7.6	36.4	9.0	29.6	7.4	9.9	2.9	18.9	8.3	--	--	0.1	0.0	20.9	2.1		
Black Spruce	0.2	0.1	5.1	1.3	7.5	1.2	12.5	1.3	10.9	1.3	8.2	1.1	17.6	2.3	12.8	2.4	17.0	3.4	8.0	1.5	14.3	14.3	--	--	2.6	1.3	9.4	0.5		
Tamarack	--	--	7.2	0.9	1.0	0.3	0.6	0.6	0.6	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3	1.1		
Total	0.4	0.2	5.4	1.2	10.0	1.7	13.2	1.2	12.4	1.4	12.8	2.1	21.2	3.0	20.3	3.8	23.2	4.3	8.9	1.6	17.8	6.2	--	--	2.1	1.0	12.0	0.6		
Hardwoods:																														
Alaska paper birch	1.2	0.4	14.2	2.2	35.1	5.8	40.9	4.6	35.4	5.5	66.0	10.5	33.3	1.6	24.4	6.8	66.9	15.8	--	--	--	--	--	--	1.0	0.9	19.1	1.8		
Quaking aspen	0.6	0.3	7.8	3.7	30.6	3.3	36.5	7.6	44.0	14.9	8.4	8.4	--	--	--	--	--	--	--	--	--	--	--	--	5.3	5.4	12.9	2.3		
Balsam poplar	--	--	25.3	6.2	8.8	3.6	33.7	5.5	65.9	65.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	23.5	6.9		
Total	1.0	0.3	13.3	1.9	31.0	3.5	39.3	3.7	38.4	5.3	61.2	10.8	33.3	1.6	24.4	6.8	66.9	15.8	--	--	--	--	--	--	2.1	2.0	17.5	1.4		
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0	0.0	--	--	0.0	0.0		
All forest types	0.7	0.2	9.7	1.3	16.8	1.9	18.7	1.5	17.6	1.9	15.0	2.4	22.2	2.8	20.6	3.5	27.5	5.0	8.9	1.6	17.8	6.2	0.0	0.0	2.1	1.1	13.3	0.6		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees ≥ 1 inch in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations

Table 62—Average aboveground biomass per acre of dead trees^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																								Nonstocked		Unknown		All forest land	
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+									
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE				
Tons per acre																														
Softwoods:																														
White spruce	4.90	0.75	0.12	0.10	1.46	0.58	1.55	0.51	0.72	0.25	2.79	1.39	2.34	1.32	1.36	0.36	2.03	0.48	1.26	0.75	0.42	0.20	--	--	2.16	0.83	1.78	0.27		
Black Spruce	4.22	0.60	0.51	0.21	0.76	0.25	1.19	0.23	1.02	0.18	0.77	0.14	1.68	0.33	1.57	0.35	1.43	0.31	0.26	0.15	0.94	0.94	--	--	3.14	0.57	1.54	0.12		
Tamarack	2.09	2.09	--	--	0.55	0.55	1.67	0.29	0.44	0.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.61	4.61	1.26	0.46		
Total	4.24	0.52	0.37	0.15	0.94	0.24	1.26	0.20	0.97	0.15	1.24	0.36	1.89	0.48	1.50	0.27	1.73	0.29	0.71	0.38	0.54	0.18	--	--	3.01	0.48	1.59	0.11		
Hardwoods:																														
Alaska paper birch	2.94	0.51	0.68	0.33	1.19	0.29	1.73	0.36	1.48	0.31	1.77	1.05	2.95	0.95	1.91	0.37	1.70	0.60	--	--	--	--	--	--	5.06	1.97	2.25	0.31		
Quaking aspen	5.77	1.46	0.46	0.19	2.43	0.81	4.18	1.38	4.53	2.27	4.91	4.91	--	--	--	--	--	--	--	--	--	--	--	--	2.83	0.52	4.03	0.74		
Balsam poplar	--	--	0.91	0.91	0.08	0.08	2.34	1.05	2.85	2.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.75	0.75	1.30	0.53		
Total	4.10	0.69	0.64	0.25	1.62	0.41	2.28	0.40	2.13	0.59	2.04	1.00	2.95	0.95	1.91	0.37	1.70	0.60	--	--	--	--	--	--	4.25	1.37	2.74	0.31		
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.08	1.57	--	--	5.08	1.57		
All forest types	4.16	0.46	0.52	0.15	1.16	0.21	1.47	0.18	1.20	0.18	1.28	0.34	1.98	0.45	1.53	0.25	1.72	0.27	0.71	0.38	0.54	0.18	5.08	1.57	3.58	0.69	2.00	0.12		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees >= 1 inch in diameter at breast height. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 63—Aboveground carbon mass^a of live trees^b on forest land, by ownership and land status

Owner class	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Thousand megagrams														
Federal government:														
Bureau of Land Management	736.7	738.9	6,581.0	1,464.4	7,317.8	1,621.4	3.2	3.7	412.2	237.5	415.4	237.5	7,733.2	1,631.1
Departments of Defense and Energy	2,775.0	1,355.8	4,681.0	1,130.6	7,455.9	1,481.0	--	--	--	--	--	--	7,455.9	1,481.0
National Park Service	--	--	--	--	--	--	319.2	313.5	6,724.6	933.8	7,043.8	953.7	7,043.8	953.7
U.S. Fish and Wildlife Service	--	--	--	--	--	--	652.0	581.5	2,694.6	902.5	3,346.6	1,004.1	3,346.6	1,004.1
Total	3,511.7	1,544.1	11,262.0	1,849.6	14,773.7	2,195.5	974.4	660.6	9,831.4	1,280.7	10,805.8	1,356.9	25,579.5	2,518.9
State and local government	27,320.9	4,077.8	51,777.7	3,428.2	79,098.6	4,677.3	2,942.4	1,602.9	302.7	158.6	3,245.1	1,610.7	82,343.7	4,764.4
Private	6,470.6	1,956.8	10,461.0	1,585.9	16,931.6	2,252.8	--	--	41.1	42.7	41.1	42.7	16,972.6	2,252.9
All owners	37,303.2	4,674.1	73,500.7	4,088.0	110,803.9	5,245.3	3,916.8	1,733.7	10,175.2	1,291.2	14,092.0	2,106.5	124,895.9	5,448.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inch diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 64—Aboveground carbon mass^a of dead trees^b on forest land, by ownership and land status

Owner class	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Thousand megagrams														
Federal government:														
Bureau of Land Management	230.08	133	1452.5	274	1682.6	295	61.726	65.9	13.6976	9.5	75.4	66	1758	302
Departments of Defense and Energy	179.52	101	1084.1	410	1263.6	402	--	--	--	--	--	--	1263.61	402
National Park Service	--	--	--	--	--	--	86.781	93.9	980.397	137	1067	152	1067.18	152
U.S. Fish and Wildlife Service	--	--	--	--	--	--	6.4769	5.65	86.8424	37	93.3	37	93.3193	37
Total	409.6	167	2536.6	493	2946.2	499	154.98	115	1080.94	141	1236	168	4182.11	524
State and local government	2759.2	625	7908	681	10667	875	87.379	66.1	162.516	78	250	102	10917.1	873
Private	688.15	332	1304.2	236	1992.4	378	0	0	2.75973	2.9	2.76	2.9	1995.13	377
All owners	3857	725	11749	865	15606	1063	242.36	133	1246.21	162	1489	197	17094.3	1074

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 1 inch in diameter at breast height.

Table 65—Average aboveground carbon mass^a per hectare of live trees^b on forest land, by forest type and ownership group

Forest type	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Kilograms per hectare															
Softwoods:																
White spruce	14,096	3,704	31,370	13,015	30,724	4,726	43,899	1,956	22,393	3,668	22,712	3,131	28,373	5,873	23,515	2,343
Black Spruce	5,268	1,008	17,282	3,749	7,422	896	8,909	3,119	8,442	921	11,584	752	12,010	2,111	10,602	563
Tamarack	--	--	8,895	8,895	545	267	--	--	2,427	1,503	2,929	2,213	--	--	2,620	1,268
Total	7,351	1,285	18,751	3,654	9,208	1,202	12,408	3,652	10,410	983	14,298	979	18,415	2,876	13,521	713
Hardwoods:																
Alaska paper birch	17,232	6,250	22,493	8,635	11,186	5,903	16,365	8,555	17,982	4,093	22,828	2,708	20,677	4,495	21,514	2,051
Quaking aspen	9,212	8,960	154	154	2,241	2,241	--	--	4,739	3,958	16,744	3,559	14,864	5,275	14,504	2,608
Balsam poplar	--	--	--	--	24,184	9,672	--	--	18,054	9,031	24,819	1,668	66,510	8,102	26,405	7,741
Total	14,328	5,516	17,795	7,335	13,271	5,074	16,365	8,555	15,186	3,315	21,084	2,120	19,782	3,493	19,635	1,581
Nonstocked	49	49	--	--	--	--	--	--	40	40	63	45	--	--	54	31
All forest types	8,451	1,593	17,834	3,201	9,852	1,245	13,124	3,437	11,107	1,011	15,890	885	18,922	2,179	14,900	646

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 0.005 kilograms per hectare was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert kilograms per hectare of carbon to tons per acre of biomass by multiplying by .00089. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inch diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 66—Average aboveground carbon mass^a per hectare of dead trees^b on forest land, by forest type and ownership group

Forest type	Federal government										All owners					
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Kilograms per hectare</i>																
Softwoods:																
White spruce	1,158	455	3,874	1,643	2,707	837	1,796	1,601	1,913	470	2,079	435	1,787	474	2,002	307
Black Spruce	2,073	479	1,895	488	1,619	217	272	80	1,642	208	1,777	181	1,694	421	1,727	131
Tamarack	--	--	--	--	1,455	437	--	--	1,127	425	1,885	1,094	--	--	1,418	515
Total	1,857	387	2,068	465	1,714	210	425	183	1,668	183	1,854	171	1,731	314	1,787	121
Hardwoods:																
Alaska paper birch	2,791	734	6,431	3,895	2,524	2,006	307	156	3,530	1,307	2,253	298	2,270	616	2,530	353
Quaking aspen	2,328	1,324	2,398	2,398	593	129	--	--	1,821	769	4,956	1,069	5,198	2,081	4,530	834
Balsam poplar	839	839	--	--	551	302	--	--	624	230	2,357	2,357	3,523	347	1,457	597
Total	2,561	607	5,582	3,130	1,280	820	307	156	2,854	916	3,043	384	3,538	979	3,078	346
Nonstocked	3,356	1,182	7,004	7,004	--	--	--	--	4,027	1,106	6,748	2,661	--	--	5,711	1,763
All forest types	2,117	324	3,331	1,050	1,645	211	403	154	2,001	241	2,322	180	2,451	442	2,247	138

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 kilograms per hectare was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert kilograms per hectare of carbon to tons per acre of biomass by multiplying by .00089. The result will be approximate due to rounding.

^b Includes all dead trees >= 1 inch in diameter at breast height.

Table 67—Aboveground carbon mass^a of live trees^b on forest land, by forest type and ownership group

Forest type	Federal government										All owners					
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Thousand megagrams																
Softwoods:																
White spruce	2,147.8	842.1	1,130.8	840.5	1,811.6	759.6	917.1	626.3	6,007.3	1,529.8	20,310.6	3,481.5	5,947.6	1,741.2	32,265.5	4,152.2
Black Spruce	2,599.4	617.2	3,883.9	1,126.4	3,704.4	567.3	1,675.0	702.6	11,862.7	1,534.8	30,421.1	2,345.6	3,913.9	849.5	46,197.7	2,889.3
Tamarack	--	--	112.6	98.9	23.7	17.5	--	--	136.4	100.4	102.8	97.9	--	--	239.2	140.3
Total	4,747.2	1,003.4	5,127.3	1,265.8	5,539.7	786.1	2,592.1	883.3	18,006.3	1,927.9	50,834.5	3,742.8	9,861.6	1,749.5	78,702.4	4,451.6
Hardwoods:																
Alaska paper birch	2,558.6	1,141.4	2,324.4	1,182.3	461.0	336.0	754.5	516.9	6,098.5	1,753.0	23,658.0	3,275.7	4,069.8	1,271.9	33,826.2	3,797.8
Quaking aspen	424.4	420.7	4.2	4.1	71.6	64.0	--	--	500.2	425.6	7,295.2	1,856.5	2,238.1	1,026.5	10,033.6	2,101.3
Balsam poplar	--	--	--	--	971.5	683.4	--	--	971.5	683.4	547.7	413.8	803.2	692.6	2,322.4	1,053.9
Total	2,983.0	1,347.7	2,328.7	1,182.4	1,504.1	763.3	754.5	516.9	7,570.2	2,014.0	31,500.9	3,553.8	7,111.1	1,738.8	46,182.2	4,194.3
Nonstocked	3.0	2.9	--	--	--	--	--	--	3.0	2.9	8.3	6.5	--	--	11.3	7.1
All forest types	7,733.2	1,631.1	7,455.9	1,481.0	7,043.8	953.7	3,346.6	1,004.1	25,579.5	2,518.9	82,343.7	4,764.4	16,972.6	2,252.9	124,895.9	5,448.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inch diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 68—Aboveground carbon mass^a of dead trees^b on forest land, by forest type and ownership group

Forest type	Federal government										State and local government		Private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		State and local		All private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Softwoods:																
White spruce	176.5	84.7	139.6	103.3	159.6	87.8	37.5	36.1	513.3	162.6	1,859.4	436.1	374.7	124.7	2,747.3	481.1
Black Spruce	1,022.8	273.1	425.8	128.2	808.0	139.8	51.2	19.2	2,307.8	331.8	4,665.4	527.7	552.0	162.4	7,525.3	642.3
Tamarack	--	--	--	--	63.3	38.2	--	--	63.3	38.2	66.1	52.7	--	--	129.5	65.1
Total	1,199.3	282.5	565.5	150.9	1,031.0	153.0	88.7	39.6	2,884.4	354.9	6,590.9	650.7	926.8	189.4	10,402.1	761.5
Hardwoods:																
Alaska paper birch	414.4	155.5	664.5	456.0	104.0	104.1	14.2	9.7	1,197.1	493.0	2,334.5	389.2	446.7	160.9	3,978.3	646.9
Quaking aspen	107.3	81.2	66.0	63.5	18.9	12.5	--	--	192.2	103.8	2,159.3	563.6	782.6	383.9	3,134.1	688.8
Balsam poplar	11.4	11.0	--	--	22.1	17.8	--	--	33.6	20.9	52.0	56.4	42.5	33.1	128.1	68.2
Total	533.1	177.8	730.5	460.0	145.1	106.2	14.2	9.7	1,422.9	504.5	4,545.9	667.4	1,271.9	406.0	7,240.6	925.9
Nonstocked	204.9	116.4	96.5	84.7	--	--	--	--	301.4	143.9	893.8	447.5	--	--	1,195.3	470.1
All forest types	1,937.3	332.6	1,392.5	443.2	1,176.0	167.5	102.8	40.8	4,608.7	578.0	12,030.6	962.4	2,198.6	416.0	18,837.9	1,183.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 1 inch in diameter at breast height.

Table 69—Aboveground carbon mass^a of live trees^b on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>										
Softwoods:										
White spruce	14,231.7	3,480.6	11,266.2	2,156.2	6,767.6	1,368.1	--	--	32,265.5	4,152.2
Black Spruce	383.0	369.0	3,671.0	1,236.0	42,143.8	2,657.0	--	--	46,197.7	2,889.3
Tamarack	--	--	--	--	239.2	140.3	--	--	239.2	140.3
Total	14,614.6	3,492.9	14,937.2	2,459.6	49,150.6	2,788.3	--	--	78,702.4	4,451.6
Hardwoods:										
Alaska paper birch	4,267.5	1,921.2	21,673.6	3,343.4	7,885.0	1,497.0	--	--	33,826.2	3,797.8
Quaking aspen	442.7	479.8	7,567.2	2,001.2	2,023.8	737.6	--	--	10,033.6	2,101.3
Balsam poplar	1,628.8	976.2	649.4	407.1	44.1	39.4	--	--	2,322.4	1,053.9
Total	6,339.1	2,241.6	29,890.2	3,793.2	9,953.0	1,649.0	--	--	46,182.2	4,194.3
Nonstocked	--	--	--	--	--	--	11.3	7.1	11.3	7.1
All forest types	20,953.7	4,137.2	44,827.4	4,385.4	59,103.5	3,064.3	11.3	7.1	124,895.9	5,448.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inch in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 70—Aboveground carbon mass^a of dead trees^b on forest land, by forest type and stand size class

Forest type	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>										
Softwoods:										
White spruce	1,018.2	391.6	729.6	163.7	999.6	244.0	--	--	2,747.3	481.1
Black Spruce	62.5	60.2	284.8	130.2	7,178.0	632.8	--	--	7,525.3	642.3
Tamarack	--	--	--	--	129.5	65.1	--	--	129.5	65.1
Total	1,080.6	395.2	1,014.4	208.5	8,307.1	660.9	--	--	10,402.1	761.5
Hardwoods:										
Alaska paper birch	123.5	67.4	854.3	192.5	3,000.6	612.0	--	--	3,978.3	646.9
Quaking aspen	40.5	43.9	737.3	245.1	2,356.3	646.9	--	--	3,134.1	688.8
Balsam poplar	47.6	34.0	69.0	58.1	11.4	11.0	--	--	128.1	68.2
Total	211.7	87.3	1,660.6	306.8	5,368.3	876.4	--	--	7,240.6	925.9
Nonstocked	--	--	--	--	--	--	1,195.3	470.1	1,195.3	470.1
All forest types	1,292.3	404.3	2,675.0	363.9	13,675.4	1,035.1	1,195.3	470.1	18,837.9	1,183.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 1 inch in diameter at breast height.

Table 71—Aboveground carbon mass^a of live trees^b on forest land, by species and diameter class

Species	Diameter class (inches)																															
	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+		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Thousand megagrams																																
Softwoods:																																
White spruce	2,105.0	257.2	4,241.2	451.1	6,196.0	597.8	7,004.1	735.9	5,918.1	711.4	5,173.1	766.5	3,724.3	749.9	2,161.2	518.2	1,141.2	354.6	442.2	233.4	1,262.5	482.8	209.5	220.6	--	--	--	--	--	--	39,578.3	3,815.2
Black spruce	17,406.9	991.6	16,365.9	1,137.5	7,842.7	767.0	2,596.7	426.4	777.8	232.5	34.6	36.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45,024.7	2,517.9
Tamarack	479.9	127.0	86.8	45.8	20.1	12.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	586.8	155.2
Total	19,991.8	1,011.5	20,694.0	1,189.6	14,058.8	930.3	9,600.8	831.5	6,695.9	744.7	5,207.7	766.8	3,724.3	749.9	2,161.2	518.2	1,141.2	354.6	442.2	233.4	1,262.5	482.8	209.5	220.6	--	--	--	--	--	--	85,189.8	4,092.5
Hardwoods:																																
Quaking aspen	433.9	132.4	978.6	271.2	1,788.3	374.8	2,461.8	648.9	1,540.6	425.5	784.8	271.1	268.1	159.2	167.4	109.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8,423.5	1,621.9
Paper birch	2,226.6	292.9	5,559.3	702.0	6,383.4	803.9	5,632.8	779.3	4,708.5	857.8	2,676.0	675.6	893.6	325.2	287.6	129.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	28,367.7	2,852.1
Balsam poplar	256.3	117.5	211.4	90.3	408.6	122.3	433.5	121.8	429.8	175.7	472.2	223.3	301.4	177.9	164.8	84.4	57.5	62.3	--	--	179.2	146.9	--	--	--	--	--	--	--	--	2,914.8	866.7
Total	2,916.8	336.8	6,749.3	747.6	8,580.2	897.4	8,528.1	1,026.4	6,678.9	985.2	3,933.0	788.7	1,463.1	397.4	619.9	183.6	57.5	62.3	--	--	179.2	146.9	--	--	--	--	--	--	--	--	39,706.1	3,301.1
All species	22,908.6	1,087.7	27,443.2	1,459.5	22,639.0	1,346.2	18,129.0	1,386.1	13,374.8	1,294.6	9,140.7	1,196.1	5,187.4	860.8	2,781.1	566.0	1,198.7	358.5	442.2	233.4	1,441.7	559.5	209.5	220.6	--	--	--	--	--	--	124,895.9	5,448.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inch in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 72—Aboveground carbon mass^a of dead trees^b on forest land, by species and diameter class

Species	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+			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
Thousand megagrams																																
Softwoods:																																
White spruce	187.5	32.1	575.1	144.7	860.7	158.5	663.4	123.4	549.5	122.3	384.5	113.6	115.7	67.4	338.6	135.4	67.9	71.1	--	--	31.9	24.8	--	--	--	--	--	--	--	--	3,774.8	625.1
Black spruce	3,596.8	307.6	3,599.5	385.8	1,716.8	185.1	408.8	70.4	40.2	30.8	47.6	33.5	45.4	43.8	--	--	--	--	--	--	-	-	--	--	--	--	--	--	--	--	9,455.2	738.9
Tamarack	856.0	166.5	307.4	61.9	125.5	34.4	60.5	21.1	--	--	--	--	--	--	--	--	--	--	--	--	-	-	--	--	--	--	--	--	--	--	1,349.5	204.9
Total	4,640.4	350.2	4,482.0	423.0	2,703.0	254.7	1,132.8	146.9	589.7	129.4	432.1	118.3	161.2	79.8	338.6	135.4	67.9	71.1	--	--	31.9	24.8	--	--	--	--	--	--	--	--	14,579.5	983.4
Hardwoods:																																
Quaking aspen	194.5	48.3	463.2	97.1	542.1	134.9	320.7	131.0	148.9	87.1	22.6	12.5	19.6	16.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,711.6	388.5
Paper birch	209.9	48.7	540.5	214.4	554.4	94.8	379.8	72.5	249.4	67.4	135.2	41.9	159.7	83.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,229.0	370.3
Balsam poplar	20.2	11.0	55.6	31.4	49.8	23.1	71.6	33.9	54.9	27.3	7.6	8.2	30.9	33.5	27.2	19.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	317.8	104.6
Total	424.7	68.8	1,059.3	237.5	1,146.3	167.1	772.0	151.6	453.3	112.7	165.4	45.6	210.2	91.1	27.2	19.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4,258.5	544.7
All species	5,065.1	357.8	5,541.3	535.3	3,849.3	325.9	1,904.8	211.7	1,043.0	172.8	597.5	128.3	371.3	120.1	365.9	143.3	67.9	71.1	--	--	31.9	24.8	--	--	--	--	--	--	--	--	18,837.9	1,183.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 73—Carbon mass of live trees^a on forest land among ecosections^b

Forest type	Ecosection													
	Yukon River		Tanana-Kuskokwim		Kuskokwim		Yukon-Tanana		Ray Mountains		Alaska Range		All ecosections	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>														
Softwoods:														
White spruce	64.8	67.6	11,480.6	2,184.8	--	--	15,028.3	3,388.7	1,796.8	932.5	3,895.0	1,224.7	32,265.5	4,152.2
Black spruce	373.9	260.5	16,793.6	2,027.0	1,427.8	483.8	21,139.5	2,209.5	3,803.6	1,053.7	2,113.3	707.8	45,651.7	2,885.8
Tamarack	--	--	239.2	140.3	--	--	--	--	--	--	--	--	239.2	140.3
Total	438.7	269.1	28,513.4	2,884.8	1,427.8	483.8	36,167.8	3,859.9	5,600.4	1,406.3	6,008.3	1,397.5	78,156.4	4,456.1
Hardwoods:														
Aspen	--	--	3,039.4	1,076.2	264.7	294.5	5,749.4	1,810.2	311.9	224.1	375.8	396.2	9,741.1	2,101.7
Paper birch	496.9	487.4	9,704.1	2,264.9	2,103.2	1,077.2	16,373.5	2,707.5	4,076.9	1,448.9	1,071.6	701.4	33,826.2	3,797.8
Balsam poplar	--	--	2,131.1	1,036.9	--	--	--	--	--	--	-	-	2,322.4	1,053.9
Total	496.9	487.4	14,874.6	2,674.2	2,367.9	1,116.7	22,122.8	3,203.6	4,388.8	1,462.0	1,447.5	805.5	45,889.7	4,209.0
Nonstocked	3.0	2.9	--	--	7.1	6.4	1.2	1.3	--	--	--	--	11.3	7.1
All forest types	938.6	556.8	43,388.0	3,730.4	3,802.8	1,213.1	58,291.9	4,913.7	9,989.1	1,943.1	7,455.7	1,611.8	124,057.4	5,475.2

Note: Totals may be off due to rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inch diameter at breast height, consisting of growing stock, rough cull and rotten cull trees from ground to tip, includes stem wood, bark and branches; calculated with regional biomass equations.

^b From Nowacki et al. 2001.

Table 74—Carbon mass of down woody material^a on forest land, by ownership and forest type

Forest type	Federal government										State and local		All private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		Total	SE	Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE			Total	SE		
Thousand megagrams																
Softwoods:																
White spruce	172.2	62.5	87.5	44.3	352.8	160.0	175.8	115.8	788.3	207.1	3,003.1	531.4	1,041.8	314.4	4,833.2	650.4
Black spruce	591.6	133.4	442.8	147.3	595.0	113.9	297.3	127.0	1,926.7	256.3	4,019.7	419.5	380.9	104.5	6,327.3	499.6
Tamarack	--	--	8.6	7.5	21.0	20.2	--	--	29.6	21.5	37.1	22.0	--	--	66.8	30.8
Total	763.8	144.9	538.9	144.9	968.8	177.6	473.0	165.2	2,744.6	307.1	7,060.0	641.1	1,422.7	313.3	11,227.2	771.9
Hardwoods:																
Aspen	297.8	172.6	199.7	157.1	90.8	57.4	--	--	588.4	240.3	2,495.3	562.4	700.5	223.0	3,784.1	645.0
Paper birch	958.9	361.5	592.8	217.3	222.2	168.2	148.1	82.0	1,922.0	460.8	7,741.4	1,234.7	975.6	337.9	10,639.1	1,341.7
Balsam poplar	95.0	91.5	--	--	145.8	83.0	--	--	240.8	123.5	150.3	125.8	40.5	39.0	431.6	180.4
Total	1,351.7	418.6	792.5	263.3	458.8	194.0	148.1	82.0	2,751.2	535.8	10,387.0	1,314.2	1,716.6	375.4	14,854.8	1,437.7
Nonstocked	150.9	128.2	71.3	62.6	--	--	--	--	222.3	142.7	257.6	126.4	17.7	18.6	497.6	191.5
All forest types	2,266.4	447.1	1,402.8	259.9	1,427.7	246.2	621.1	182.8	5,718.0	587.7	17,704.5	1,382.5	3,157.0	465.2	26,579.6	1,530.4

^a Includes coarse woody debris (≥3 inches) and fine woody debris (<3 inches).

Table 75—Carbon mass per hectare of down woody material^a on forest land, by ownership and forest type

Forest type	Federal government										State and local		All private		All owners	
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total		Total	SE	Total	SE	Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE						
Kilograms per hectare																
Softwoods:																
White spruce	503	119	1,082	409	2,675	782	3,744	22	1,311	285	1,506	213	2,231	513	1,579	171
Black spruce	535	97	878	237	534	92	705	253	612	70	685	64	524	120	650	46
Tamarack	--	--	301	301	219	173	--	--	238	134	474	216	--	--	329	118
Total	527	81	878	203	721	132	1,009	307	708	74	890	75	1,192	243	864	56
Hardwoods:																
Aspen	2,883	962	3,237	1,253	1,274	142	--	--	2,489	598	2,562	453	2,077	453	2,445	317
Paper birch	2,887	709	2,554	414	2,439	1,359	1,431	344	2,533	388	3,344	424	2,223	551	3,029	303
Balsam poplar	3,136	3,136	--	--	1,618	265	--	--	2,003	369	3,057	1,119	1,492	447	2,197	407
Total	2,903	552	2,698	434	1,820	529	1,431	344	2,467	297	3,112	324	2,137	357	2,826	224
Nonstocked	1,100	796	2,304	2,304	--	--	--	--	1,321	674	876	338	3,978	3,978	1,065	327
All forest types	1,106	189	1,495	245	895	152	1,085	266	1,109	104	1,530	115	1,577	211	1,419	79

^a Includes coarse woody debris (≥3 inches) and fine woody debris (<3 inches).

Table 76—Carbon mass of down woody material^a on forest land, by forest type and stand age class

Forest type	Stand age class (years)																								Unknown		All forest land	
	1-20		21-40		41-60		61-80		81-100		101-120		121-140		141-160		161-180		181-200		201+							
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
Thousand megagrams																												
Softwoods:																												
White spruce	338	231	134	67	600	234	362	125	242	106	731	263	627	257	696	248	545	270	271	189	144	92	--	--	4,833	650		
Black spruce	1,119	247	361	115	519	110	1,105	192	513	100	373	79	703	186	461	152	230	93	89	60	112	107	--	--	6,327	500		
Tamarack	2	2	25	16	2	2	31	26	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	31		
Total	1,460	338	520	133	1,121	257	1,499	227	756	144	1,105	273	1,330	314	1,157	290	775	285	360	198	255	141	--	--	11,227	772		
Hardwoods:																												
Aspen	1,679	418	268	120	564	192	424	221	174	132	8	9	--	--	--	--	--	--	--	--	--	--	--	--	3,784	645		
Paper birch	5,081	1,138	1,675	445	734	251	1,007	397	757	302	143	80	220	159	180	124	74	52	--	--	--	--	--	--	10,639	1,342		
Balsam poplar	--	--	43	43	68	45	189	138	37	39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	432	180		
Total	6,759	1,194	1,986	462	1,366	321	1,619	454	967	331	151	81	220	159	180	124	74	52	--	--	--	--	--	--	14,855	1,438		
All forest types	8,219	1,224	2,506	480	2,486	404	3,118	503	1,723	360	1,256	285	1,550	351	1,337	313	849	290	360	198	255	141	--	--	26,580	1,530		

^a Includes coarse woody debris (≥3 inches) and fine woody debris (<3 inches).

Table 77—Biomass of down woody material^a on forest land, by owner and land status

Owner	Land status													
	Unreserved forests						Reserved forests							
	Timberland		Other forests		Total		Productive		Other forest		Total		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Federal government:														
Bureau of Land Management	853.9	484.7	3,639.2	796.8	4,493.1	919.8	332.6	319.8	84.8	54.3	417.4	323.7	4,910.6	964.6
Departments of Defense and Energy	714.9	368.0	2,351.1	515.8	3,066.0	566.6	--	--	--	--	--	--	3,066.0	566.6
National Park Service	--	--	--	--	--	--	492.9	360.3	2,590.4	423.1	3,083.2	527.9	3,083.2	527.9
U.S. Fish and Wildlife Service	--	--	--	--	--	--	335.7	247.4	1,005.6	331.4	1,341.3	394.4	1,341.3	394.4
Total	1,568.8	608.5	5,990.3	949.1	7,559.2	1,080.0	1,161.2	539.9	3,680.8	537.2	4,842.0	718.3	12,401.2	1,268.9
State and local government	14,544.5	2,226.2	23,039.3	2,325.5	37,583.7	2,997.6	598.8	355.3	383.6	166.9	982.4	391.5	38,566.2	2,994.5
Private	2,607.8	809.6	4,281.1	799.2	6,888.9	1,004.9	--	--	1.3	1.3	1.3	1.3	6,890.2	1,004.9
All owners	18,721.1	2,421.3	33,310.7	2,606.2	52,031.8	3,249.5	1,760.0	646.3	4,065.7	562.5	5,825.7	818.1	57,857.5	3,311.3

^a Includes coarse woody debris (≥3 inches) and fine woody debris (<3 inches).

Table 78—Biomass of down woody material^a on forest land, by owner and stand size class

Owner	Stand size class									
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		Nonstocked		All size classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>										
Federal government:										
Bureau of Land Management	--	--	1,314.5	616.4	3,264.4	707.1	331.7	281.7	4,910.6	964.6
Departments of Defense and Energy	378.9	332.6	551.7	294.6	1,979.7	484.8	155.8	136.7	3,066.0	566.6
National Park Service	506.1	269.5	652.9	404.8	1,924.2	322.5	--	--	3,083.2	527.9
U.S. Fish and Wildlife Service	138.2	147.7	243.3	149.5	959.8	310.8	--	--	1,341.3	394.4
Total	1,023.2	452.8	2,762.5	807.1	8,128.1	941.9	487.4	313.2	12,401.2	1,268.9
State and local government	4,742.8	1,304.6	7,906.8	1,221.9	25,356.6	2,681.4	559.9	273.1	38,566.2	2,994.5
Private	452.0	301.7	1,738.1	489.6	4,661.0	927.8	39.1	41.0	6,890.2	1,004.9
All owners	6,218.0	1,413.1	12,407.3	1,468.8	38,145.7	2,967.9	1,086.4	417.4	57,857.5	3,311.3

^a Includes coarse woody debris (≥3 inches) and fine woody debris (<3 inches).

Table 79—Total soil organic carbon (SOC) and soil carbon density by forest type; SOC is summarized as the total carbon of all layers

Forest type	Total SOC		SOC density	
	million Mg	SE	Mg ha ⁻¹	SE
Softwoods:				
Black spruce	362.8	18.2	91.6	2.5
White spruce	111.8	11.3	74.7	3.6
Tamarack	7.7	4.2	115.7	32.4
Hardwoods:				
Aspen	37.6	6.6	51.9	5.8
Balsam poplar	9.0	5.0	88.4	34.0
Paper birch	127.5	12.0	75.9	3.8
Nonstocked	16.9	4.7	86.7	10.8
All forest types	673.2	18.9	81.9	1.8

^a Includes soil cores that sampled mineral soil. Mineral soil standardized to a thickness of 3 inches.

Table 80—Average soil organic carbon by forest type and soil layer^a

Layer	Forest type													
	Black spruce		White spruce		Tamarack		Aspen		Balsam poplar		Birch		All forest	
	Average	SE	Average	SE	Average	SE	Average	SE	Average	SE	Average	SE	Average	SE
Megagrams per hectare														
Litter	0.47	0.05	0.85	0.09	0.97	0.62	1.27	0.15	1.14	0.22	1.37	0.13	0.79	0.05
Identifiable plant parts	20.97	0.80	17.06	1.15	21.07	5.66	10.15	3.89	23.92	9.19	13.70	1.09	17.66	0.64
Unidentifiable plant parts	28.19	1.19	24.86	2.10	42.68	15.31	15.81	1.68	8.80	4.05	23.87	2.03	25.57	0.87
Mineral soil	42.04	1.79	32.06	1.86	51.02	12.69	24.76	3.25	54.83	30.50	37.23	3.17	37.96	1.26
Total	91.62	2.51	74.73	3.64	115.73	32.36	51.90	5.84	88.37	33.98	75.88	3.84	81.87	1.81

^a Includes soil cores that sampled mineral soil. Mineral soil standardized to a thickness of 3 inches.

Table 81—Number of sampled forest and nonforest plots by measurement year

Measurement year	Plot condition			Total number of plots with VEG
	Forest land	Nonforest land	Both ^a	Profile
2014	76	0	6	82
2016	166	1	12	179
2017	174	8	12	194
2018	233	24	11	268

^a Both forest and nonforest lands are within the plot boundaries.

VEG = vegetation

Table 82—Total count of conditions on which understory plant species were recorded and mean percentage of cover on forested plots

Scientific name	Common name	Number of conditions	Percentage cover		Growth habit	Number of conditions	Percentage cover	
			Mean	SE			Mean	SE
<i>Picea mariana</i>	black spruce	1487	21.76	0.47	SD	1475	10.83	0.48
					LT	306	24.05	0.59
<i>Vaccinium vitis-idaea</i>	lingonberry	1335	17.45	0.45				
<i>Ledum groenlandicum</i>	bog Labrador tea	1166	22.11	0.57				
<i>Vaccinium uliginosum</i>	bog blueberry	1031	18.18	0.52				
<i>Betula neoalaskana</i>	Alaska paper birch	867	18.76	0.65	SD	755	17.16	0.65
					LT	351	22.23	1.12
<i>Picea glauca</i>	white spruce	772	12.76	0.41	SD	606	11.26	0.44
					LT	511	14.54	0.51
<i>Betula glandulosa</i>	resin birch	654	21.04	0.73				
<i>Alnus viridis</i>	green alder	552	22.21	0.85	SH	533	21.79	0.87
					SD	19	33.84	4.31
<i>Ledum palustre ssp. decumbens</i>	marsh Labrador tea	498	20.71	0.80				
<i>Calamagrostis canadensis</i>	bluejoint	488	16.63	0.91				
<i>Rubus chamaemorus</i>	cloudberry	347	7.40	0.43	FB	346	3.00	0.43
					SH	1	7.41	0.00
<i>Rosa acicularis</i>	prickly rose	340	12.67	0.87				
<i>Betula nana</i>	dwarf birch	338	17.73	1.00				
<i>Eriophorum vaginatum</i>	tussock cottongrass	298	29.56	1.36				
<i>Populus tremuloides</i>	quaking aspen	289	20.93	1.14	SD	244	21.62	1.28
					LT	108	19.35	1.70
<i>Equisetum sylvaticum</i>	woodland horsetail	284	16.94	1.06				
<i>Salix bebbiana</i>	Bebb willow	275	11.25	0.71	SH	208	11.44	0.81
					SD	65	10.42	1.50
					LT	4	16.75	5.38
<i>Empetrum nigrum</i>	black crowberry	212	14.79	1.05				
<i>Salix pulchra</i>	tealeaf willow	206	13.07	0.89	SH	205	33.63	0.89
					SD	1	13.02	
<i>Alnus incana ssp. tenuifolia</i>	thinleaf alder	165	25.35	1.73	SH	133	25.56	1.97
					SD	32	24.49	3.66
<i>Cornus canadensis</i>	bunchberry dogwood	160	10.31	1.19				
<i>Geocaulon lividum</i>	false toadflax	157	5.35	0.32				

<i>Larix laricina</i>	tamarack	155	7.11	0.57	SD	154	7.12	0.57
					LT	1	6.00	
<i>Equisetum arvense</i>	field horsetail	150	22.49	2.09				
<i>Chamerion angustifolium ssp. angustifolium</i>	fireweed	127	11.77	1.63				
<i>Salix scouleriana</i>	Scouler's willow	122	11.96	1.14	SH	102	11.16	1.12
					SD	20	16.15	3.95
					LT	1	11.00	
<i>Carex bigelowii</i>	Bigelow's sedge	96	17.79	1.69				
<i>Salix glauca</i>	grayleaf willow	95	9.38	0.73	SH	93	8.50	0.75
					SD	2	9.40	3.50
<i>Viburnum edule</i>	squashberry	93	15.59	1.69				
<i>Equisetum pratense</i>	meadow horsetail	91	16.01	1.78				

Table 83—Elevational distribution of nonforest dominance types of understory vegetation

Dominance class	Description	Number of plots	Physiographic class categories ^a			Elevation		
			Hydric	Mesic	Xeric	Range	Mean	Median
			-----Number of conditions-----			-----Feet-----		
Tally tree seedlings and saplings	Tally Tree seedlings/saplings cover ≥ 25 percent	2	2			531 - 567	549	549
Nontally tree seedlings and saplings	Non-tally tree species cover ≥ 25 percent	5	2	4		413 - 1853	1162	666
Tall shrub	Shrub cover ≥ 25 percent; at least 25% shrub cover > 6 feet OR majority shrub cover > 6 feet	11	1	11	1	413 - 3762	2076	2348
Low shrub	Shrub cover ≥ 25 percent; at least 25% shrub cover 2.1 - 6 feet OR majority shrub cover 2.1 - 6 feet	30	4	44	29	331 - 4025	2803	2705
Dwarf shrub	Shrub cover ≥ 25 percent; at least 25% shrub cover < 2 feet OR majority shrub cover < 2 feet	33	26	31	15	331 - 3762	2027	2181
Forb herbaceous	Vascular plant cover ≥ 25 percent; majority of herbaceous cover is forbs	4	3	1	1	328 - 2827	1407	1082
Graminoid herbaceous	Vascular plant cover ≥ 25 percent; majority of herbaceous cover is graminoids	13	14	3	1	413 - 2257	1087	710
Bryophyte	Vascular plant cover < 25 percent; bryophyte cover ≥ 25 percent	4		3	1	712 - 3073	2043	2193
Lichen	Vascular plant cover < 25 percent; lichen cover ≥ 25 percent	1		1		1528	1528	1528

^a More than one physiographic class is possible on a single plot.

Table 84—Constancy and percentage of nonforest vegetation cover among dominance classes

Dominance class	Scientific name	Common name	Number of conditions	Percentage cover		Growth habit	Number of conditions	Percentage cover	
				Mean	SE			Mean	SE
Tally tree seedlings and saplings	<i>Populus balsamifera</i>	balsam poplar	3	23.86	9.75	SD	2	28.18	6.53
						LT	1	4.79	
	<i>Picea glauca</i>	white spruce	2	14.09	6.02	SD	1	16.82	
						LT	1	4.79	
	<i>Betula neoalaskana</i>	Alaska paper birch	1	40.64					
	<i>Populus tremuloides</i>	quaking aspen	1	18.22					
Nontally tree seedlings and saplings	<i>Rosa acicularis</i>	prickly rose	1	4.79					
	<i>Equisetum arvense</i>	field horsetail	1	4.20					
	<i>Alnus incana ssp. tenuifolia</i>	thinleaf alder	5	41.40	9.67	SH	2	37.50	7.50
						SD	3	44.00	16.86
	<i>Calamagrostis canadensis</i>	bluejoint	4	8.50	3.33				
	<i>Salix bebbiana</i>	Bebb willow	3	40.67	7.22	SD	2	45.00	10.00
						LT	1	32.00	
	<i>Alnus viridis</i>	green alder	2	47.50	12.50	SH	1	60.00	
						SD	1	35.00	
	<i>Salix arbusculoides</i>	littletree willow	2	11.00	6.00	SH	1	5.00	
						SD	1	17.00	
	<i>Circaea alpina</i>	small enchanter's nightshade	2	6.00	1.00				
	<i>Rubus idaeus</i>	American red raspberry	2	6.00	3.00				
	<i>Agrostis scabra</i>	rough bentgrass	1	65.00					
	<i>Salix interior</i>	sandbar willow	1	35.00					
	<i>Equisetum arvense</i>	field horsetail	1	25.00					
	<i>Calla palustris</i>	water arum	1	20.00					
	<i>Comarum palustre</i>	purple marshlocks	1	20.00					
	<i>Carex utriculata</i>	Northwest Territory sedge	1	16.00					
	<i>Dasiphora fruticosa ssp. floribunda</i>	shrubby cinquefoil	1	12.00					
	<i>Salix pseudomyrsinites</i>	firmleaf willow	1	9.00					
	<i>Cornus canadensis</i>	bunchberry dogwood	1	6.00					
	<i>Betula neoalaskana</i>	Alaska paper birch	1	5.00					
	<i>Picea glauca</i>	white spruce	1	5.00					
	<i>Ribes triste</i>	red currant	1	5.00					
	<i>Chamaedaphne calyculata</i>	leatherleaf	1	3.00					
	<i>Mertensia paniculata</i>	tall bluebells	1	3.00					
	<i>Rosa acicularis</i>	prickly rose	1	3.00					
	<i>Thalictrum sparsiflorum</i>	fewflower meadow-rue	1	3.00					
	<i>Viburnum edule</i>	squashberry	1	3.00					
Tall shrub	<i>Alnus viridis</i>	green alder	9	51.65	5.81				
	<i>Calamagrostis canadensis</i>	bluejoint	6	18.83	6.34				
	<i>Betula glandulosa</i>	resin birch	5	33.60	9.19				
	<i>Vaccinium uliginosum</i>	bog blueberry	5	17.29	6.18				
	<i>Picea glauca</i>	white spruce	5	4.20	0.80	SD	3	4.33	1.33
						LT	2	4.00	1.00
	<i>Ledum palustre ssp. decumbens</i>	marsh Labrador tea	3	16.80	9.32				
	<i>Salix bebbiana</i>	Bebb willow	3	12.67	1.76	SD	1	10.00	
						LT	2	14.00	2.00
	<i>Salix scouleriana</i>	Scouler's willow	2	47.50	2.50				
	<i>Equisetum sylvaticum</i>	woodland horsetail	2	27.26	33.14				
	<i>Picea mariana</i>	black spruce	2	11.30	7.25				
	<i>Eriophorum vaginatum</i>	tussock cottongrass	2	10.76	4.08				
	<i>Betula neoalaskana</i>	Alaska paper birch	2	9.51	2.06	SD	1	8.00	
						LT	1	12.12	
	<i>Rosa acicularis</i>	prickly rose	2	9.50	1.50				
	<i>Cornus canadensis</i>	bunchberry dogwood	2	6.97	1.33				
	<i>Rubus idaeus</i>	American red raspberry	2	6.50	3.50				
	<i>Spiraea stevenii</i>	beauverd spirea	2	3.17	0.23				
	<i>Salix richardsonii</i>	Richardson's willow	1	65.00					
	<i>Alnus incana ssp. tenuifolia</i>	thinleaf alder	1	30.00					
	<i>Salix pulchra</i>	tealeaf willow	1	30.00					
	<i>Empetrum nigrum</i>	black crowberry	1	10.00					
	<i>Salix pseudomonticola</i>	false mountain willow	1	10.00					
	<i>Rubus chamaemorus</i>	cloudberry	1	8.00					
	<i>Viburnum edule</i>	squashberry	1	8.00					
	<i>Vaccinium vitis-idaea</i>	lingonberry	1	6.99					
	<i>Artemisia tilesii</i>	Tilesius' wormwood	1	5.00					
	<i>Chamerion angustifolium ssp. angustifoli</i>	fireweed	1	4.00					
	<i>Mertensia paniculata</i>	tall bluebells	1	4.00					
	<i>Ribes triste</i>	red currant	1	4.00					

	<i>Circaea alpina</i>	small enchanter's nightshade	1	3.00					
	<i>Equisetum arvense</i>	field horsetail	1	3.00					
Low shrub	<i>Betula glandulosa</i>	resin birch	64	42.52	2.63				
	<i>Vaccinium uliginosum</i>	bog blueberry	46	16.11	2.00				
	<i>Picea glauca</i>	white spruce	43	5.37	0.51	SD	28	5.04	0.35
						LT	15	6.00	1.34
	<i>Vaccinium vitis-idaea</i>	lingonberry	23	13.17	2.47				
	<i>Ledum palustre ssp. decumbens</i>	marsh Labrador tea	22	26.05	4.09				
	<i>Alnus viridis</i>	green alder	17	12.41	2.38				
	<i>Empetrum nigrum</i>	black crowberry	16	10.94	2.08				
	<i>Ledum groenlandicum</i>	bog Labrador tea	14	36.86	7.23				
	<i>Salix pulchra</i>	tealeaf willow	10	19.20	4.17				
	<i>Betula nana</i>	dwarf birch	9	33.67	7.31				
	<i>Picea mariana</i>	black spruce	7	15.29	7.03				
	<i>Salix scouleriana</i>	Scouler's willow	6	7.17	1.92				
	<i>Calamagrostis canadensis</i>	bluejoint	6	5.33	1.20				
	<i>Salix glauca</i>	grayleaf willow	5	9.00	3.11				
	<i>Carex aquatilis</i>	water sedge	4	37.50	13.62				
	<i>Salix richardsonii</i>	Richardson's willow	4	25.25	13.66				
	<i>Cornus canadensis</i>	bunchberry dogwood	4	4.00	0.71				
	<i>Dasiphora fruticosa ssp. floribunda</i>	shrubby cinquefoil	3	19.00	5.57				
	<i>Equisetum sylvaticum</i>	woodland horsetail	3	11.00	4.00				
	<i>Salix bebbiana</i>	Bebb willow	3	11.00	4.00				
	<i>Betula neoalaskana</i>	Alaska paper birch	3	4.00	0.58				
	<i>Eriophorum vaginatum</i>	tussock cottongrass	2	36.00	24.00				
	<i>Equisetum arvense</i>	field horsetail	2	31.50	28.50				
	<i>Salix alaxensis</i>	feltleaf willow	2	19.50	15.50				
	<i>Salix pseudomyrsinites</i>	firmleaf willow	2	16.00	4.00				
	<i>Carex bigelowii</i>	Bigelow's sedge	2	6.50	3.50				
	<i>Chenopodium capitatum</i>	blite goosefoot	2	6.00	0.00				
	<i>Chamaedaphne calyculata</i>	leatherleaf	2	5.00	0.00				
	<i>Chamerion angustifolium ssp. angustifoli</i>	fireweed	2	3.00	0.00				
Dwarf shrub	<i>Ledum palustre ssp. decumbens</i>	marsh Labrador tea	46	25.38	2.26				
	<i>Vaccinium uliginosum</i>	bog blueberry	42	19.33	2.40				
	<i>Betula glandulosa</i>	resin birch	37	29.43	2.91				
	<i>Vaccinium vitis-idaea</i>	lingonberry	32	13.67	2.37				
	<i>Eriophorum vaginatum</i>	tussock cottongrass	31	48.12	3.89				
	<i>Betula nana</i>	dwarf birch	27	24.35	2.87				
	<i>Picea mariana</i>	black spruce	20	6.10	0.82	SD	19	6.26	0.84
						LT	1	3.00	0.00
	<i>Picea glauca</i>	white spruce	13	7.36	1.92	SD	11	7.71	2.27
						LT	2	5.50	0.50
	<i>Rubus chamaemorus</i>	cloudberry	13	5.15	0.54				
	<i>Carex bigelowii</i>	Bigelow's sedge	12	19.25	4.22				
	<i>Empetrum nigrum</i>	black crowberry	11	17.00	4.48				
	<i>Alnus viridis</i>	green alder	10	15.90	7.94				
	<i>Ledum groenlandicum</i>	bog Labrador tea	5	21.80	6.08				
	<i>Alnus incana ssp. tenuifolia</i>	thinleaf alder	5	17.80	9.20	SH	4	11.00	8.00
						SD	1	45.00	
	<i>Arctostaphylos rubra</i>	red fruit bearberry	5	12.80	2.71				
	<i>Salix pulchra</i>	tealeaf willow	4	14.50	8.76				
	<i>Populus balsamifera</i>	balsam poplar	4	5.65	2.05	SD	3	5.42	2.90
						LT	1	6.49	
	<i>Dryas drummondii</i>	Drummond's mountain-aven	3	68.60	13.87				
	<i>Salix bebbiana</i>	Bebb willow	3	5.00	1.53	SH	2	5.50	2.50
						LT	1	4.00	
	<i>Dasiphora fruticosa ssp. floribunda</i>	shrubby cinquefoil	2	21.50	18.50				
	<i>Chamaedaphne calyculata</i>	leatherleaf	2	17.50	12.50				
	<i>Dryas octopetala</i>	eightpetal mountain-avens	2	11.50	3.50				
	<i>Carex utriculata</i>	Northwest Territory sedge	2	9.00	4.00				
	<i>Salix glauca</i>	grayleaf willow	2	7.00	4.00				
	<i>Calamagrostis lapponica</i>	lapland reedgrass	2	6.50	3.50				
	<i>Rosa acicularis</i>	prickly rose	2	5.00	2.00				
Tous	<i>Picea glauca</i>	white spruce	4	4.29	1.20	SD	2	5.15	2.52
						LT	2	3.43	0.51
	<i>Ceratophyllum demersum</i>	coon's tail	2	22.90	3.39				
	<i>Callitriche palustris</i>	vernal water-starwort	2	4.58	0.49				
	<i>Carex aquatilis</i>	water sedge	2	4.01	0.01				
	<i>Rorippa palustris ssp. fernaldiana</i>	Fernald's yellowcress	1	70.00					
	<i>Eriophorum russeolum</i>	red cottongrass	1	14.04					
	<i>Dryas octopetala</i>	eightpetal mountain-avens	1	11.00					
	<i>Equisetum fluviatile</i>	water horsetail	1	10.00					

Forb herbace	<i>Equisetum hyemale</i>	scouringrush horsetail	1	8.19				
	<i>Carex utriculata</i>	Northwest Territory sedge	1	8.00				
	<i>Typha latifolia</i>	broadleaf cattail	1	6.69				
	<i>Betula glandulosa</i>	resin birch	1	6.00				
	<i>Andromeda polifolia</i>	bog rosemary	1	5.85				
	<i>Menyanthes trifoliata</i>	buckbean	1	5.85				
	<i>Lemna minor</i>	common duckweed	1	4.00				
	<i>Ledum palustre ssp. decumbens</i>	marsh Labrador tea	1	4.00				
	<i>Sanguisorba officinalis</i>	great burnet	1	3.51				
	<i>Ranunculus pensylvanicus</i>	Pennsylvania buttercup	1	3.00				
Graminoid herbaceous	<i>Rosa acicularis</i>	prickly rose	1	2.68				
	<i>Betula nana</i>	dwarf birch	1	1.17				
	<i>Calamagrostis canadensis</i>	bluejoint	9	47.11	12.88			
	<i>Betula nana</i>	dwarf birch	4	12.06	2.94			
	<i>Myrica gale</i>	sweetgale	4	4.28	0.48			
	<i>Eriophorum vaginatum</i>	tussock cottongrass	3	73.00	1.53			
	<i>Carex aquatilis</i>	water sedge	3	41.31	21.12			
	<i>Carex chordorrhiza</i>	creeping sedge	3	7.32	4.18			
	<i>Carex</i>	sedge	2	42.50	17.50			
	<i>Comarum palustre</i>	purple marshlocks	2	20.43	8.17			
	<i>Salix bebbiana</i>	Bebb willow	2	9.50	3.50			
	<i>Carex magellanica</i>	boreal bog sedge	2	7.51	0.61			
	<i>Alnus incana ssp. tenuifolia</i>	thinleaf alder	2	7.50	1.50			
	<i>Menyanthes trifoliata</i>	buckbean	2	6.93	1.11			
	<i>Betula neoalaskana</i>	Alaska paper birch	2	3.00	0.00	SD	1	3.00
						LT	1	3.00
	<i>Agrostis</i>	bentgrass	1	70.00				
	<i>Eriophorum angustifolium</i>	tall cottongrass	1	55.00				
	<i>Salix niphoclada</i>	barrenground willow	1	20.73				
	<i>Carex canescens</i>	silvery sedge	1	20.00				
	<i>Betula glandulosa</i>	resin birch	1	10.00				
	<i>Equisetum fluviatile</i>	water horsetail	1	9.66				
	<i>Salix scouleriana</i>	Scouler's willow	1	6.00				
	<i>Chamaedaphne calyculata</i>	leatherleaf	1	5.43				
	<i>Salix myrtillifolia</i>	blueberry willow	1	4.00				
	<i>Equisetum sylvaticum</i>	woodland horsetail	1	3.00				
	<i>Picea mariana</i>	black spruce	1	3.00				
	<i>Potentilla diversifolia</i>	varileaf cinquefoil	1	3.00				
	<i>Rosa acicularis</i>	prickly rose	1	3.00				
	<i>Salix pulchra</i>	tealeaf willow	1	3.00				
	<i>Taraxacum officinale</i>	common dandelion	1	3.00				
	<i>Larix laricina</i>	tamarack	1	1.37				
Bryophyte	<i>Alnus viridis</i>	green alder	2	7.44	3.675			
	<i>Salix scouleriana</i>	Scouler's willow	2	5.50	2.50			
	<i>Betula glandulosa</i>	resin birch	1	12.00				
	<i>Chamerion latifolium</i>	dwarf fireweed	1	12.00				
	<i>Calamagrostis canadensis</i>	bluejoint	1	11.35				
	<i>Salix bebbiana</i>	Bebb willow	1	8.00				
	<i>Salix pseudomonticola</i>	false mountain willow	1	8.00				
	<i>Salix pseudomyrsinites</i>	firmleaf willow	1	6.00				
	<i>Betula neoalaskana</i>	Alaska paper birch	1	5.68				
Lichen	<i>Calamagrostis lapponica</i>	lapland reedgrass	1	4.00				
	<i>Vaccinium uliginosum</i>	bog blueberry	1	3.00				

Table 85—Constancy and percentage of understory vegetation cover by species and forest type

Forest type	Scientific name	Common name	Number of conditions	Percentage cover		Growth habit	Number of conditions	Percentage cover	
				Mean	SE			Mean	SE
White spruce	<i>Picea glauca</i>	white spruce	382	15.05	0.65	SD	79	11.39	1.48
						LT	21	7.48	1.18
	<i>Vaccinium vitis-idaea</i>	lingonberry	178	17.64	1.17				
	<i>Vaccinium uliginosum</i>	bog blueberry	166	25.03	1.51				
	<i>Betula glandulosa</i>	resin birch	158	28.53	1.67				
	<i>Ledum groenlandicum</i>	bog Labrador tea	137	18.84	1.46				
	<i>Alnus viridis</i>	green alder	105	30.57	2.20	SH	100	30.84	2.29
						SD	5	25.2	6.14
	<i>Betula neoalaskana</i>	resin birch	102	8.86	0.74	SD	72	8.63	0.92
						LT	59	9.13	0.92
	<i>Rosa acicularis</i>	prickly rose	86	12.44	1.32				
	<i>Calamagrostis canadensis</i>	bluejoint	83	16.73	2.18				
Black spruce	<i>Picea mariana</i>	black spruce	81	10.55	1.35	SD	79	11.39	1.48
						LT	21	7.48	1.18
	<i>Picea mariana</i>	black spruce	1189	23.74	0.52	SD	1186	26.08	0.53
						LT	226	11.48	0.75
	<i>Vaccinium vitis-idaea</i>	lingonberry	849	16.81	0.53				
	<i>Ledum groenlandicum</i>	bog Labrador tea	758	22.59	0.70				
	<i>Vaccinium uliginosum</i>	bog blueberry	679	17.47	0.63				
	<i>Ledum palustre ssp. decumbens</i>	marsh Labrador tea	400	21.07	0.90				
	<i>Betula glandulosa</i>	resin birch	386	18.26	0.86				
	<i>Rubus chamaemorus</i>	cloudberry	288	7.8	0.50	FB	287	7.82	0.51
						SH	1	3	0.00
	<i>Betula nana</i>	dwarf birch	261	15.57	1.02				
Tamarack	<i>Betula neoalaskana</i>	resin birch	249	9.69	0.62	SD	222	9.53	0.68
						LT	62	10.27	1.04
	<i>Eriophorum vaginatum</i>	tussock cottongrass	234	30.06	1.54				
	<i>Larix laricina</i>	tamarack	18	13.31	2.72	SD	18	13.31	2.72
	<i>Betula nana</i>	dwarf birch	15	12.38	2.68				
	<i>Ledum palustre ssp. decumbens</i>	marsh Labrador tea	10	15.2	2.42				
	<i>Picea mariana</i>	black spruce	10	13.32	3.35	SD	10	13.32	3.35
	<i>Rubus chamaemorus</i>	cloudberry	10	7.1	1.52				
	<i>Vaccinium vitis-idaea</i>	lingonberry	10	7.1	3.12				
	<i>Ledum groenlandicum</i>	bog Labrador tea	9	22.44	7.98				
	<i>Chamaedaphne calyculata</i>	leatherleaf	9	16.56	2.94				
	<i>Calamagrostis canadensis</i>	bluejoint	8	17.04	3.52				
Aspen	<i>Eriophorum vaginatum</i>	tussock cottongrass	8	7.32	1.46				
	<i>Populus tremuloides</i>	quaking aspen	188	25.05	1.50	SD	162	25.57	1.69
						LT	69	23.81	2.21
	<i>Vaccinium vitis-idaea</i>	lingonberry	109	25.23	2.15				
	<i>Betula neoalaskana</i>	resin birch	81	12.21	1.39	SD	76	10.38	1.14
						LT	24	18	3.56
	<i>Picea glauca</i>	white spruce	72	9.63	0.77	SD	57	8.16	0.78
						LT	50	11.31	0.98
	<i>Ledum groenlandicum</i>	bog Labrador tea	64	17.03	2.12				
	<i>Salix bebbiana</i>	Bebb willow	50	9.36	1.00	SH	49	9.37	1.02
						SD	1	9	0.00
	<i>Picea mariana</i>	black spruce	48	12.84	2.38	SD	46	14.63	2.66
						LT	12	6	1.29
	<i>Vaccinium uliginosum</i>	bog blueberry	44	15.95	2.01				
	<i>Calamagrostis canadensis</i>	bluejoint	43	12.85	2.56				

Alaska paper birch	<i>Rosa acicularis</i>	prickly rose	41	15.35	2.60				
	<i>Chamerion angustifolium ssp. an</i>	fireweed	41	8.2	1.41				
	<i>Betula neoalaskana</i>	resin birch	429	26.62	1.04	SD	379	24.78	1.05
						LT	206	30.02	1.60
	<i>Alnus viridis</i>	green alder	189	26.15	1.58	SH	176	25.59	1.66
						SD	13	33.62	4.45
	<i>Ledum groenlandicum</i>	bog Labrador tea	175	25.22	1.71				
	<i>Vaccinium vitis-idaea</i>	lingonberry	174	16.6	1.31				
	<i>Picea mariana</i>	black spruce	156	16.46	1.39	SD	151	18.39	1.55
						LT	47	10.45	1.09
	<i>Calamagrostis canadensis</i>	bluejoint	154	22.59	1.86				
	<i>Picea glauca</i>	white spruce	146	11.45	0.87	SD	113	11.2	1.13
						LT	89	11.76	0.89
	<i>Rosa acicularis</i>	prickly rose	143	13.04	1.43				
	<i>Vaccinium uliginosum</i>	bog blueberry	105	13.86	1.23				
	<i>Equisetum sylvaticum</i>	woodland horsetail	66	23.03	2.73				
	<i>Salix bebbiana</i>	Bebb willow	66	10.2	1.04	SH	39	10.43	1.47
						SD	26	8.65	1.27
						LT	3	20.67	5.21
Balsam poplar	<i>Alnus incana ssp. tenuifolia</i>	thinleaf alder	24	40.99	5.48	SH	17	45.47	6.51
						SD	7	30.29	9.52
	<i>Populus balsamifera</i>	balsam poplar	22	28.18	3.62	SD	16	25.34	4.12
						LT	19	30.55	4.01
	<i>Picea glauca</i>	white spruce	11	20.69	4.21	SD	9	15.8	4.20
						LT	4	30.75	6.01
	<i>Equisetum arvense</i>	field horsetail	10	61	9.60				
	<i>Rosa acicularis</i>	prickly rose	9	44.11	9.25				
	<i>Viburnum edule</i>	squashberry	7	11.71	5.32				
	<i>Salix bebbiana</i>	Bebb willow	5	45.61	8.98	SH	1	28.03	0.00
						SD	4	48.75	10.28
	<i>Salix scouleriana</i>	Scouler's willow	5	23	6.04	SH	3	16.67	4.41
						SD	2	32.5	12.50
Unknown	<i>Calamagrostis canadensis</i>	bluejoint	5	19.2	8.47				
	<i>Salix interior</i>	sandbar willow	5	7	1.70				
	<i>Vaccinium uliginosum</i>	bog blueberry	30	16.47	3.66				
	<i>Ledum groenlandicum</i>	bog Labrador tea	23	16.17	4.36				
	<i>Betula glandulosa</i>	resin birch	22	13.69	2.99				
	<i>Calamagrostis canadensis</i>	bluejoint	20	11.4	3.93				
	<i>Chamerion angustifolium ssp. an</i>	fireweed	16	18.47	5.56				
	<i>Vaccinium vitis-idaea</i>	lingonberry	15	11.16	3.54				
	<i>Eriophorum vaginatum</i>	tussock cottongrass	13	44.31	6.54				
	<i>Equisetum sylvaticum</i>	woodland horsetail	13	14.69	2.84				
	<i>Rubus chamaemorus</i>	cloudberry	10	4.7	0.62				
	<i>Betula nana</i>	dwarf birch	7	10.14	2.74				

Table 86—Number of invasive species recorded on all plots

Scientific name	Common name	Invasive ranking ^a	Number of plots and subplots	Average percentage canopy cover where recorded	Percentage canopy cover range
<i>Crepis tectorum</i>	narrowleaf hawk	56	1/4	2.5	2 - 3
<i>Matricaria discoidea</i>	disc mayweed	32	2/3	1	1
<i>Plantago major</i>	common plantain	44	1/2	1	1
<i>Taraxacum officinale</i>	common dandelion	58	1/1	3	3
<i>Trifolium sp.</i>	clover	50-59	1/2	1	1
<i>Vicia cracca ssp. cracca</i>	bird vetch	73	2/3	1	1

^a From Carlson et al. 2008.

Table 87—Distribution of plots among physiographic classes and elevation by forest type

Forest type	Number of plots	Physiographic class categories ^a			Elevation		
		Hydric	Mesic	Xeric	Range	Mean	Median
		----- <i>Number of conditions</i> -----			----- <i>Feet</i> -----		
Black spruce	370	80	288	19	259 - 4025	1553	1437
White spruce	129	18	101	19	210 - 4025	1985	2093
Tamarack	10	6	4		298 - 1043	625	636.5
Paper birch	139	19	122	7	213 - 3214	1281	1151
Aspen	65		60	6	361 - 3080	1445	1335
Balsam poplar	8		8		289 - 1200	643	351
Undefined	19	5	14		298 - 2644	937	620

^a More than one physiographic class is possible on a single plot.

Table 88—Distribution and mean cover of understory species by growth habit and forest type

Scientific name	Common name	Total conditions with record	Growth habit*	Conditions by growth habit	Forest type																				
					Black spruce			White spruce			Tamarack			Paper birch			Aspen			Balsam poplar			Other		
					No. conds.	Mean cover	SE	No. conds.	Mean cover	SE	No. conds.	Mean cover	SE	No. conds.	Mean cover	SE	No. conds.	Mean cover	SE	No. conds.	Mean cover	SE	No. conds.	Mean cover	SE
<i>Picea mariana</i>	black spruce	1487	SD	1475	1186	26.1	0.5	79	11.4	1.5	10	13.3	3.4	151	18.4	1.5	46	14.6	2.7				3	6.0	2.5
			LT	306	226	11.5	0.7	21	7.5	1.2				47	10.5	1.1	12	6.0	1.3						
<i>Vaccinium vitis-idaea</i>	lingonberry	1335	SH		849	16.8	0.5	178	17.6	1.2	10	7.1	3.1	174	16.6	1.3	109	25.2	2.2				15	11.2	3.5
<i>Ledum groenlandicum</i>	bog Labrador tea	1166	SH		758	22.6	0.7	137	18.8	1.5	9	22.4	8.0	175	25.2	1.7	64	17.0	2.1				23	16.2	4.4
<i>Vaccinium uliginosum</i>	bog blueberry	1031	SH		679	17.5	0.6	166	25.0	1.5	7	8.6	2.3	105	13.9	1.2	44	16.0	2.0				30	16.5	3.7
<i>Betula neolaskana</i>	resin birch	867	SD	755	222	9.5	0.7	72	8.6	0.9	3	6.1	8.2	379	24.8	1.1	76	10.4	1.1	2	6.5	3.5	1	4.0	0.0
			LT	351	62	10.3	1.0	59	9.1	0.9				206	30.0	1.6	24	18.0	3.6						
<i>Picea glauca</i>	white spruce	772	SD	606	113	8.1	0.7	309	12.9	0.7	5	8.0	2.2	113	11.2	1.1	57	8.2	0.8	9	15.8	4.2			
			LT	511	80	8.8	0.8	288	17.3	0.8				89	11.8	0.9	50	11.3	1.0	4	30.8	6.0			
<i>Betula glandulosa</i>	resin birch	654	SH		386	18.3	0.9	157	28.7	1.7	5	34.9	10.1	59	17.9	2.1	24	27.9	4.3				22	13.7	3.0
<i>Alnus viridis</i>	green alder	552	SH	533	221	15.7	1.0	100	30.8	2.3	3	8.7	3.5	176	25.6	1.7	30	14.7	1.7	3	36.7	0.0			
			SD	19	1	80.0	0.0	5	25.2	6.1				13	33.6	4.4									
<i>Ledum palustre</i> ssp. <i>decumbens</i>	marsh Labrador tea	498	SH		400	21.1	0.9	44	23.5	3.1	10	15.2	2.4	31	16.5	2.5	8	11.1	3.2				5	21.6	4.1
<i>Calamagrostis canadensis</i>	bluejoint	488	GR		175	12.7	1.4	83	16.7	2.2	8	17.0	3.5	154	22.6	1.9	43	12.9	2.6	5	19.2	8.5	20	11.4	3.9
<i>Rubus chamaemorus</i>	cloudberry	347	FB	346	287	7.8	0.5	14	4.3	0.4	10	7.1	1.5	25	5.8	0.9							10	4.7	0.6
			SH	1	1	3.0	0.0																		
<i>Rosa acicularis</i>	prickly rose	340	SH		60	5.7	1.2	86	12.4	1.3				143	13.0	1.4	41	15.4	2.6	9	44.1	9.3	1	3.0	0.0
<i>Betula nana</i>	dwarf birch	338	SH		261	15.6	1.0	21	38.7	5.2	15	12.4	2.7	25	27.8	4.7	9	16.6	4.9				7	10.1	2.7
<i>Eriophorum vaginatum</i>	tussock cottongrass	298	GR		234	30.1	1.5	21	21.0	4.3	8	7.3	1.5	22	31.2	5.1							13	44.3	6.5
<i>Populus tremuloides</i>	quaking aspen	289	SD	244	24	13.5	2.9	17	13.2	2.0				40	14.5	2.4	162	25.6	1.7	1	3.0	0.0			
			LT	108	12	11.8	2.9	14	8.1	1.6				12	15.7	5.9	69	23.8	2.2	1	5.0	0.0			
<i>Equisetum sylvaticum</i>	woodland horsetail	284	FB		180	13.8	1.0	17	27.9	8.1	1	7.0	0.0	66	23.0	2.7	7	22.9	5.7				13	14.7	2.8
<i>Salix bebbiana</i>	Bebb willow	275	SH	208	82	10.5	1.4	31	18.4	2.8	3	13.5	6.4	39	10.4	1.5	49	9.4	1.0	1	28.0	0.0	3	6.7	1.8
			SD	65	18	7.6	1.2	15	7.2	1.1				26	8.7	1.3	1	9.0	0.0	4	48.8	10.3	1	3.0	0.0
			LT	4				1	5.0	0.0				3	20.7	5.2									
<i>Empetrum nigrum</i>	black crowberry	212	SH		135	11.9	0.9	66	21.3	2.6	1	8.0	0.0	3	4.3	0.3	6	16.8	4.4				1	5.0	0.0
<i>Salix pulchra</i>	tealeaf willow	206	SH	205	114	11.1	1.0	50	16.6	1.7				16	11.2	3.6	22	17.4	4.3	2	5.0	0.0	1	3.0	0.0
			SD	1	1	33.6	0.0																		
<i>Alnus incana</i> ssp. <i>tenuifolia</i>	thinleaf alder	165	SH	133	36	20.1	3.5	44	28.6	3.1	7	19.6	7.2	21	18.3	3.6	8	15.4	8.6	17	45.5	6.5			
			SD	32	10	13.0	2.7	7	25.4	8.1				7	27.6	7.7	1	70.0	0.0	7	30.3	9.5			
<i>Cornus canadensis</i>	bunchberry dogwood	160	FB		26	8.1	2.8	41	13.2	2.4				63	6.9	0.9	23	10.1	3.7	4	52.5	16.0	1	3.0	0.0
			SH											2	6.5	3.5									
<i>Geocaulon lividum</i>	false toadflax	157	FB		84	5.0	0.4	39	6.1	0.8				9	3.6	0.2	23	5.8	1.0	2	8.5	3.5			
<i>Larix laricina</i>	tamarack	155	SD	154	127	6.4	0.5	1	3.0	0.0	18	13.3	2.7	5	6.8	2.9	1	3.0	0.0				2	4.0	1.0
			LT	1	1	6.0	0.0																		
<i>Equisetum arvense</i>	field horsetail	150	FB		40	9.2	2.7	53	23.1	3.2				42	26.7	3.9	4	4.8	1.0	10	61.0	9.6	1	38.4	0.0
<i>Chamerion angustifolium</i> ssp. <i>fireweed</i>		127	FB		11	4.1	0.6	12	4.3	0.6				47	16.5	3.6	41	8.2	1.4				16	18.5	5.6
<i>Salix scouleriana</i>	Scouler's willow	122	SH	102	34	8.9	1.1	14	14.1	2.6				31	12.8	3.0	20	9.5	2.0	3	16.7	4.4			
			SD	20	2	4.5	1.5	4	14.8	4.9				9	15.2	7.6	3	17.7	7.9	2	32.5	12.5			
			LT	1				1	11.0	0.0															
<i>Carex bigelowii</i>	Bigelow's sedge	96	GR		69	18.7	1.9	9	27.2	8.9				12	11.3	2.5							6	6.5	1.9
<i>Salix glauca</i>	grayleaf willow	95	SH	93	46	7.3	0.7	20	11.1	1.7				14	9.6	2.0	10	16.7	3.6				3	5.3	1.2
			SD	2	1	5.0	0.0	1	6.0	0.0							1	12.0	0.0						
<i>Viburnum edule</i>	squashberry	93	SH		1	3.0	0.0	29	12.8	2.1				35	17.2	2.6	21	18.6	5.1	7	11.7	5.3			
<i>Equisetum pratense</i>	meadow horsetail	91	FB		39	12.5	1.8	24	19.2	3.8	1	3.0	0.0	20	22.2	5.4	5	10.0	6.3	1	8.0	0.0	1	3.0	0.0

* Growth habits codes are as follows: GR- graminoid; FB- forb; SH- shrub/sub-shrub; SD- seedling or sapling (<5 inches diameter at breast height); LT- large tree ≥5 inches diameter at breast height).

Table 89—Estimates of ground layer biomass, carbon, and nitrogen stocks by forest type for forested lands

Forest type	Biomass mean	Biomass SE	Carbon mean	Carbon SE	Nitrogen mean	Nitrogen SE
<i>Tons per acre</i>						
White spruce	5.903	0.533	2.62	0.236	0.066	0.006
Black spruce	8.361	0.606	3.711	0.269	0.089	0.007
Tamarack	6.64	0.782	2.947	0.347	0.066	0.008
Aspen	1.94	0.263	0.861	0.117	0.021	0.003
Alaska birch	2.997	0.428	1.33	0.19	0.033	0.005
Balsam poplar	1.151	0.272	0.511	0.121	0.013	0.003
Nonstocked	1.863	0.454	0.827	0.202	0.019	0.005

Table 90—Estimates of ground layer biomass, carbon, and nitrogen stocks by functional group for forested lands

Functional group ^a	Biomass mean	Biomass SE	Carbon mean	Carbon SE	Nitrogen mean	Nitrogen SE
<i>Tons per acre</i>						
CC	0.039	0.01	0.017	0.004	0.001	0
CO	0.016	0.005	0.007	0.002	0	0
LF	0.811	0.298	0.36	0.132	0.005	0.002
LL	0.116	0.047	0.052	0.021	0.001	0
LN	0.171	0.081	0.076	0.036	0.004	0.002
LR	0.186	0.081	0.082	0.036	0.001	0.001
LU	0.202	0.1	0.09	0.045	0.005	0.003
MF	1.168	0.518	0.519	0.23	0.014	0.006
MN	5.106	1.052	2.266	0.467	0.058	0.012
MS	6.574	2	2.918	0.887	0.062	0.019
MT	1.07	0.36	0.475	0.16	0.011	0.004
VF	0.275	0.091	0.122	0.04	0.004	0.001
VS	0.276	0.163	0.122	0.072	0.004	0.002

^a Functional group codes follow the 2018 Forest Inventory and Analysis interior Alaska supplement to the Alaska Forestry Sciences Laboratory field manual.

Table 91—Area of disturbance^a by disturbance type, among landowners

Disturbance type	Federal government												All owners			
	Bureau of Land Management		Departments of Defense and Energy		National Park Service		U.S. Fish and Wildlife Service		Total federal		State and local government		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Thousand acres																
Insect damage																
Inset damage to understory vegetation	63	45	--	--	--	--	--	--	63	45	20	22	--	--	84	50
Insect damage to trees, seedlings and saplings	61	44	263	85	63	46	--	--	387	106	1,768	217	577	121	2,732	266
Total	124	63	263	85	63	46	--	--	450	115	1,829	220	577	121	2,856	270
Disease damage																
Disease damage to understory	--	--	--	--	--	--	--	--	--	--	56	42	--	--	56	42
Disease damage to trees, seedlings and saplings	34	33	28	30	63	45	68	45	192	77	112	59	60	44	365	106
Total	34	33	28	30	63	45	109	58	234	85	141	66	60	44	435	116
Fire																
Ground fire	34	33	84	50	102	57	--	--	220	82	153	67	60	44	432	115
Crown fire	185	72	76	46	--	--	21	23	282	88	264	88	31	32	577	128
Total	218	78	118	55	142	66	21	23	499	118	445	114	91	54	1,035	173
Animal damage																
Beaver - includes flooding caused by beaver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Porcupine	--	--	--	--	--	--	--	--	--	--	71	44	--	--	71	44
Bear	13	15	68	46	--	--	--	--	82	49	112	54	27	30	221	79
Total	13	15	68	46	--	--	--	--	82	49	212	76	27	30	321	95
Weather																
Ice	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wind	--	--	--	--	--	--	--	--	--	--	68	45	--	--	68	45
Flooding - weather induced	34	33	--	--	30	27	--	--	64	42	61	44	--	--	125	61
Drought	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	34	33	--	--	30	27	--	--	64	42	129	63	--	--	193	75
Geological disturbances																
Landslide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Avalanche track	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Earth movements	--	--	--	--	--	--	--	--	--	--	70	46	--	--	70	46
Other	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	70	46	--	--	70	46
Vegetation																
Suppression, competition	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Human-caused damage																
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown/unsure	29	30	--	--	80	50	--	--	108	59	262	88	--	--	370	106
Total	419	107	443	99	377	102	131	62	1,370	184	2,940	265	630	124	4,939	338
None	1,847	189	592	107	1,393	130	501	101	4,333	243	9,893	332	1,592	144	15,818	406

^a Disturbance must be >1 acre in size, within the last 5 years and affect >25% of all trees or 50% of an individual species.