

App. 1. Basal area statistics by habitat-patch. Basal areas are given as mean plot basal area for all plots sampled within each habitat-patch in each sample period. For consistency with earlier samples, only stems > 12.6 cm (5 in) DBH are included. ‘Other species’ include *Fraxinus americana*, *Fraxinus pensylvanica*, *Larix laricina*, *Populus balsamifera*, *Prunus serotina*, *Quercus rubra*, *Sorbus americana*, *Tilia americana*, and *Ulmus americana*. Habitat-patches are described in terms of dominance and location in the stand (see Fig. 2) as well as by symbols used in Figs. 2 and 3. Because ‘mixed wetland’ patches are less spatially coherent than other types and have small sample sizes, they are pooled in Table 7.

1. Tsuga patch A, western edge of stand (blue circles)

Species	Number of plots	Sample Period					
		1935 9	1948 6	1970s 12	1989-92 12	1997-99 13	2002-04 12
<i>Abies balsamea</i>	Basal area (m ² /ha)	0.99	1.16	0.36	0.14	0.21	0.19
	Sample SD	0.74	1.83	0.40	0.21	0.28	0.28
<i>Acer rubrum</i>	Basal area (m ² /ha)	4.34	4.74	6.79	8.56	8.33	9.03
	Sample SD	3.18	4.54	4.74	5.97	6.02	6.32
<i>Acer saccharum</i>	Basal area (m ² /ha)	0.40	0.88	0.77	0.52	0.67	0.52
	Sample SD	0.63	1.56	1.33	1.08	1.20	1.16
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	7.91	7.07	7.58	6.32	6.13	5.79
	Sample SD	4.58	6.21	4.78	2.94	2.73	2.75
<i>Fagus grandifolia</i>	Basal area (m ² /ha)	0.00	0.00	0.05	0.00	0.01	0.03
	Sample SD	0.00	0.00	0.18	0.00	0.05	0.07
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	0.42	0.20	0.26	0.23	0.31	0.26
	Sample SD	0.90	0.49	0.55	0.56	0.61	0.62
<i>Picea glauca</i>	Basal area (m ² /ha)	0.41	0.19	0.29	0.29	0.19	0.19
	Sample SD	0.49	0.46	0.42	0.57	0.51	0.56
<i>Picea mariana</i>	Basal area (m ² /ha)	0.02	0.23	0.02	0.00	0.00	0.00
	Sample SD	0.05	0.58	0.08	0.00	0.00	0.00
<i>Pinus strobus</i>	Basal area (m ² /ha)	4.85	3.00	4.14	4.49	4.23	1.95
	Sample SD	13.40	4.60	11.02	11.85	11.58	5.24
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	3.59	2.52	2.23	2.94	2.95	2.64
	Sample SD	5.35	3.47	4.60	5.77	5.41	5.37
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	18.42	19.17	23.24	26.27	26.87	27.85
	Sample SD	5.78	4.00	8.40	8.33	8.42	9.02
other spp	Basal area (m ² /ha)	0.51	0.17	0.00	0.01	0.02	0.02
	Sample SD	1.01	0.41	0.00	0.05	0.06	0.07
total	Basal area (m ² /ha)	41.85	39.33	45.73	49.76	49.93	48.47
	Sample SD	12.23	7.10	12.92	14.54	13.73	7.56

2. Tsuga patch B, south-central portion of stand (blue squares)

Species	Number of plots	Sample Period					
		1935 9	1948 4	1970s 9	1989-92 9	1997-99 9	2002-04 9
<i>Abies balsamea</i>	Basal area (m ² /ha)	0.86	1.16	0.20	0.16	0.20	0.26
	Sample SD	1.17	2.33	0.32	0.25	0.28	0.29
<i>Acer rubrum</i>	Basal area (m ² /ha)	3.74	4.49	3.55	4.25	4.60	5.00
	Sample SD	2.70	5.21	2.78	2.82	2.99	3.21
<i>Acer saccharum</i>	Basal area (m ² /ha)	3.54	0.78	2.94	4.22	4.27	4.26
	Sample SD	7.57	0.92	6.27	10.42	10.76	10.58
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	9.42	9.30	8.57	9.01	9.04	8.90
	Sample SD	3.89	3.65	3.60	4.23	3.73	4.13
<i>Fagus grandifolia</i>	Basal area (m ² /ha)	0.08	0.25	0.38	0.51	0.51	0.62
	Sample SD	0.16	0.41	0.51	0.63	0.72	0.75
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	0.41	1.13	0.00	0.00	0.00	0.00
	Sample SD	1.23	2.25	0.00	0.00	0.00	0.00
<i>Ostrya virginiana</i>	Basal area (m ² /ha)	0.06	0.00	0.05	0.02	0.02	0.04
	Sample SD	0.18	0.00	0.15	0.06	0.06	0.12
<i>Picea glauca</i>	Basal area (m ² /ha)	1.56	0.41	0.51	0.50	0.19	0.20
	Sample SD	3.75	0.68	1.25	1.36	0.41	0.43
<i>Pinus strobus</i>	Basal area (m ² /ha)	0.00	0.00	1.19	1.23	1.25	1.21
	Sample SD	0.00	0.00	3.56	3.69	3.76	3.63
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	1.44	1.64	1.39	0.55	0.60	0.66
	Sample SD	4.08	3.28	3.57	1.21	1.31	1.45

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App. 1, cont.

<i>Tsuga canadensis</i>	Basal area (m ² /ha)	33.68	30.23	27.94	32.62	34.32	35.39
	Sample SD	16.84	9.38	17.06	19.76	20.66	20.67
other spp	Basal area (m ² /ha)	0.38	0.40	0.73	0.03	0.00	0.00
	Sample SD	0.82	0.80	1.45	0.09	0.00	0.00
total	Basal area (m ² /ha)	55.16	49.79	47.43	53.11	55.01	56.54
	Sample SD	9.74	6.51	11.09	13.53	14.24	13.43

3. Mixed hardwood - Tsuga patch A, south-western portion of stand (light green circles)

Species	Number of plots	Sample Period					
		1935	1948	1970s	1989-92	1997-99	2002-04
		12	6	13	13	12	12
<i>Abies balsamea</i>	Basal area (m ² /ha)	0.28	0.28	0.19	0.17	0.27	0.34
	Sample SD	0.33	0.44	0.30	0.23	0.36	0.48
<i>Acer rubrum</i>	Basal area (m ² /ha)	4.49	3.69	4.45	4.13	4.97	4.94
	Sample SD	2.40	1.46	3.00	3.93	4.47	4.97
<i>Acer saccharum</i>	Basal area (m ² /ha)	7.80	4.79	5.32	8.64	8.55	8.59
	Sample SD	3.41	1.87	2.79	3.87	3.90	4.14
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	12.31	13.35	14.36	14.50	14.97	14.80
	Sample SD	4.02	5.26	6.34	5.69	6.43	7.25
<i>Fagus grandifolia</i>	Basal area (m ² /ha)	0.73	0.76	1.12	1.79	1.77	1.84
	Sample SD	0.76	0.58	1.08	1.36	1.33	1.31
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	0.52	0.00	0.00	0.05	0.06	0.06
	Sample SD	1.76	0.00	0.00	0.18	0.19	0.21
<i>Ostrya virginiana</i>	Basal area (m ² /ha)	0.03	0.00	0.00	0.04	0.04	0.04
	Sample SD	0.12	0.00	0.00	0.09	0.10	0.10
<i>Picea glauca</i>	Basal area (m ² /ha)	0.04	0.03	0.02	0.05	0.07	0.07
	Sample SD	0.13	0.06	0.06	0.11	0.12	0.13
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	0.09	0.19	0.11	0.11	0.12	0.13
	Sample SD	0.28	0.46	0.39	0.41	0.43	0.44
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	12.44	12.04	13.55	14.74	16.67	18.13
	Sample SD	5.65	6.43	6.67	9.65	9.46	9.93
other spp	Basal area (m ² /ha)	0.27	0.00	0.88	0.00	0.00	0.00
	Sample SD	0.94	0.00	2.12	0.00	0.00	0.00
total	Basal area (m ² /ha)	38.99	35.12	39.99	44.22	47.49	48.94
	Sample SD	8.36	8.43	7.98	8.66	7.68	7.44

4. Mixed hardwood - Tsuga patch B, north-central portion of stand (light green squares)

Species	Number of plots	Sample Period					
		1935	1948	1970s	1989-92	1997-99	2002-04
		18	9	17	17	18	18
<i>Abies balsamea</i>	Basal area (m ² /ha)	0.53	0.07	0.03	0.00	0.00	0.01
	Sample SD	1.46	0.21	0.11	0.00	0.00	0.04
<i>Acer rubrum</i>	Basal area (m ² /ha)	3.74	2.44	4.14	4.12	4.47	3.60
	Sample SD	2.95	3.71	3.96	4.87	5.41	4.15
<i>Acer saccharum</i>	Basal area (m ² /ha)	13.10	14.44	15.15	16.28	16.44	12.39
	Sample SD	9.81	11.45	12.46	11.93	13.49	12.26
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	8.74	8.45	8.91	8.49	7.07	6.04
	Sample SD	4.57	4.96	5.32	5.60	5.47	5.08
<i>Fagus grandifolia</i>	Basal area (m ² /ha)	3.32	3.52	5.79	6.44	7.55	5.34
	Sample SD	1.93	2.50	4.67	4.65	4.71	2.79
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	0.03	0.02	0.05	0.00	0.00	0.00
	Sample SD	0.13	0.05	0.21	0.00	0.00	0.00
<i>Ostrya virginiana</i>	Basal area (m ² /ha)	0.04	0.00	0.02	0.01	0.02	0.02
	Sample SD	0.13	0.00	0.06	0.06	0.07	0.07
<i>Picea glauca</i>	Basal area (m ² /ha)	0.02	0.00	0.00	0.02	0.03	0.02
	Sample SD	0.06	0.00	0.00	0.07	0.08	0.07
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	6.23	3.67	5.72	4.95	6.62	7.07
	Sample SD	7.58	5.17	9.56	7.56	10.12	10.54
other spp	Basal area (m ² /ha)	0.03	0.04	0.05	0.00	0.00	0.00
	Sample SD	0.12	0.13	0.20	0.00	0.00	0.00
total	Basal area (m ² /ha)	35.78	32.64	39.86	40.32	42.18	34.49
	Sample SD	6.97	5.84	9.06	6.02	7.33	9.95

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App. 1, cont.

5. *Acer saccharum* patch A, southeast portion of stand (red circles)

Species	Number of plots	Sample Period					
		1935 28	1948 14	1970s 28	1989-92 29	1997-99 29	2002-04 29
<i>Abies balsamea</i>	Basal area (m ² /ha)	0.10	0.00	0.01	0.05	0.06	0.08
	Sample SD	0.26	0.00	0.05	0.14	0.26	0.36
<i>Acer rubrum</i>	Basal area (m ² /ha)	0.33	0.23	0.56	0.62	0.71	0.72
	Sample SD	0.97	0.84	1.51	1.52	1.69	1.78
<i>Acer saccharum</i>	Basal area (m ² /ha)	25.92	28.03	28.54	30.80	31.40	28.36
	Sample SD	7.42	8.88	8.10	9.09	8.73	7.88
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	5.94	4.47	4.63	3.30	2.93	2.60
	Sample SD	5.72	5.28	5.16	5.86	5.33	4.91
<i>Fagus grandifolia</i>	Basal area (m ² /ha)	0.01	0.00	0.03	0.08	0.10	0.11
	Sample SD	0.06	0.00	0.11	0.21	0.30	0.34
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	0.01	0.00	0.09	0.03	0.06	0.03
	Sample SD	0.03	0.00	0.43	0.17	0.32	0.18
<i>Ostrya virginiana</i>	Basal area (m ² /ha)	0.35	0.42	0.14	0.17	0.20	0.22
	Sample SD	0.60	0.63	0.25	0.27	0.30	0.31
<i>Picea glauca</i>	Basal area (m ² /ha)	0.01	0.00	0.05	0.03	0.04	0.04
	Sample SD	0.03	0.00	0.24	0.19	0.20	0.21
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	0.05	0.00	0.43	0.37	0.38	0.39
	Sample SD	0.27	0.00	2.28	1.99	2.05	2.11
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	0.19	0.00	0.22	0.32	0.37	0.45
	Sample SD	0.66	0.00	0.99	1.23	1.43	1.72
other spp	Basal area (m ² /ha)	0.31	0.66	0.65	0.44	0.49	0.52
	Sample SD	0.82	1.44	1.40	1.56	1.67	1.76
total	Basal area (m ² /ha)	33.22	33.81	35.36	36.21	36.74	33.53
	Sample SD	6.01	7.50	7.51	7.96	7.04	7.62

6. *Acer saccharum* patch B, north-central portion of stand (red squares)

Species	Number of plots	Sample Period					
		1935 37	1948 18	1970s 36	1989-92 37	1997-99 38	2002-04 37
<i>Abies balsamea</i>	Basal area (m ² /ha)	0.31	0.24	0.06	0.06	0.08	0.06
	Sample SD	0.52	0.37	0.11	0.16	0.23	0.23
<i>Acer rubrum</i>	Basal area (m ² /ha)	0.61	0.64	0.79	0.55	0.60	0.52
	Sample SD	1.53	1.49	2.07	1.63	1.83	1.71
<i>Acer saccharum</i>	Basal area (m ² /ha)	25.56	24.50	28.21	30.66	31.34	27.28
	Sample SD	9.38	7.79	8.01	9.30	9.66	10.47
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	5.37	4.97	5.82	4.07	3.32	2.88
	Sample SD	5.70	4.68	5.23	5.42	4.57	3.94
<i>Fagus grandifolia</i>	Basal area (m ² /ha)	0.27	0.45	0.10	0.51	0.39	0.47
	Sample SD	0.70	0.95	0.20	1.29	0.94	0.98
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	0.05	0.11	0.02	0.08	0.05	0.04
	Sample SD	0.24	0.46	0.08	0.36	0.22	0.17
<i>Ostrya virginiana</i>	Basal area (m ² /ha)	0.48	0.41	0.09	0.16	0.18	0.23
	Sample SD	0.67	0.59	0.21	0.26	0.29	0.36
<i>Picea glauca</i>	Basal area (m ² /ha)	0.05	0.00	0.05	0.06	0.07	0.02
	Sample SD	0.24	0.00	0.26	0.32	0.34	0.12
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	0.00	0.00	0.02	0.03	0.03	0.04
	Sample SD	0.00	0.00	0.11	0.18	0.21	0.21
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	0.50	0.03	0.39	0.40	0.44	0.50
	Sample SD	1.92	0.15	1.57	1.86	2.12	2.32
other spp	Basal area (m ² /ha)	0.33	0.36	0.64	0.40	0.41	0.45
	Sample SD	0.64	0.73	2.05	1.01	1.05	1.12
total	Basal area (m ² /ha)	33.53	31.71	36.19	36.97	36.92	32.48
	Sample SD	7.11	5.95	6.57	7.50	7.10	9.48

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App. 1, cont.**7. Mixed wetland patches combined, lavender squares and circles**

Species	Number of plots	Sample Period			
		1935 23	1948 19	1970s 31	2001-04 27
<i>Abies balsamea</i>	Basal area (m ² /ha)	2.34	1.86	0.85	1.17
	Sample SD	1.40	2.05	0.71	1.01
<i>Acer rubrum</i>	Basal area (m ² /ha)	1.30	3.17	1.73	1.92
	Sample SD	2.46	5.38	2.73	3.14
<i>Acer saccharum</i>	Basal area (m ² /ha)	2.05	3.11	4.54	5.69
	Sample SD	2.35	4.35	5.17	6.41
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	7.34	8.66	8.16	8.09
	Sample SD	4.89	4.87	4.40	4.07
<i>Fagus grandifolia</i>	Basal area (m ² /ha)	0.09	0.12	0.26	0.50
	Sample SD	0.27	0.31	0.64	1.12
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	6.35	4.98	2.50	2.72
	Sample SD	5.67	4.47	2.66	3.47
<i>Ostrya virginiana</i>	Basal area (m ² /ha)	0.05	0.13	0.03	0.06
	Sample SD	0.11	0.45	0.11	0.16
<i>Picea glauca</i>	Basal area (m ² /ha)	1.15	1.34	0.65	0.81
	Sample SD	1.14	1.64	0.89	1.04
<i>Picea mariana</i>	Basal area (m ² /ha)	0.08	0.03	0.38	0.00
	Sample SD	0.28	0.12	1.24	0.00
<i>Pinus strobus</i>	Basal area (m ² /ha)	0.00	0.40	0.00	0.00
	Sample SD	0.00	1.76	0.00	0.00
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	8.46	7.03	6.46	6.90
	Sample SD	10.01	9.18	7.12	8.59
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	5.48	5.90	6.73	9.96
	Sample SD	8.21	9.94	9.35	13.34
other spp	Basal area (m ² /ha)	1.59	1.32	1.76	1.43
	Sample SD	1.25	1.38	2.50	1.99
total	Basal area (m ² /ha)	36.29	38.05	34.05	39.24
	Sample SD	9.98	8.73	8.89	12.21

8. Thuja - dominated patch A, east-central portion (dark green circles)

Species	Number of plots	Sample Period			
		1935 34	1948 17	1970s 34	2001-04 31
<i>Abies balsamea</i>	Basal area (m ² /ha)	2.12	2.28	1.84	1.90
	Sample SD	1.48	1.49	1.26	1.32
<i>Acer rubrum</i>	Basal area (m ² /ha)	0.41	0.52	0.91	1.00
	Sample SD	0.66	0.54	1.01	1.00
<i>Acer saccharum</i>	Basal area (m ² /ha)	0.08	0.03	0.24	0.22
	Sample SD	0.27	0.12	0.56	0.47
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	1.90	1.69	2.70	2.91
	Sample SD	1.93	1.64	2.48	2.46
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	4.26	3.56	1.65	1.27
	Sample SD	6.16	5.77	2.13	1.47
<i>Picea glauca</i>	Basal area (m ² /ha)	2.10	3.20	3.03	3.14
	Sample SD	2.00	3.06	2.09	2.85
<i>Picea mariana</i>	Basal area (m ² /ha)	2.64	2.43	0.83	0.18
	Sample SD	3.26	3.71	1.63	0.65
<i>Pinus strobus</i>	Basal area (m ² /ha)	0.03	0.06	0.07	0.10
	Sample SD	0.15	0.26	0.39	0.56
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	22.64	25.05	24.73	28.96
	Sample SD	12.87	16.17	10.20	11.67
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	2.57	1.50	3.47	4.36
	Sample SD	7.38	2.65	9.03	10.20
other spp	Basal area (m ² /ha)	0.23	0.13	0.13	0.20
	Sample SD	0.45	0.30	0.37	0.43
total	Basal area (m ² /ha)	38.97	40.45	39.59	44.24
	Sample SD	11.86	14.52	10.67	12.26

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App. 1, cont.**9. Thuja - dominated patch B, northwest portion (dark green squares)**

Species	Number of plots	Sample Period			
		1935 21	1948 10	1970s 21	2001-04 10
<i>Abies balsamea</i>	Basal area (m ² /ha)	4.66	5.62	1.86	0.90
	Sample SD	3.12	2.83	1.42	1.10
<i>Acer rubrum</i>	Basal area (m ² /ha)	0.22	0.32	0.79	0.82
	Sample SD	0.32	0.41	1.57	0.80
<i>Acer saccharum</i>	Basal area (m ² /ha)	0.00	0.00	0.07	0.09
	Sample SD	0.00	0.00	0.25	0.22
<i>Betula alleghaniensis</i>	Basal area (m ² /ha)	0.60	0.79	1.89	2.02
	Sample SD	0.91	0.92	2.74	1.85
<i>Fraxinus nigra</i>	Basal area (m ² /ha)	0.34	0.15	0.57	0.52
	Sample SD	1.01	0.29	1.61	1.55
<i>Picea glauca</i>	Basal area (m ² /ha)	1.65	2.76	2.47	3.25
	Sample SD	1.64	3.22	2.09	1.20
<i>Picea mariana</i>	Basal area (m ² /ha)	4.27	3.76	2.52	0.25
	Sample SD	4.67	5.27	2.60	0.79
<i>Pinus strobus</i>	Basal area (m ² /ha)	0.33	0.74	0.47	1.27
	Sample SD	1.32	1.81	1.65	2.91
<i>Thuja occidentalis</i>	Basal area (m ² /ha)	33.89	31.01	34.08	54.81
	Sample SD	15.07	16.90	17.63	13.58
<i>Tsuga canadensis</i>	Basal area (m ² /ha)	0.03	0.06	0.17	0.00
	Sample SD	0.11	0.20	0.39	0.00
other spp	Basal area (m ² /ha)	0.15	0.08	0.01	0.00
	Sample SD	0.69	0.14	0.04	0.00
total	Basal area (m ² /ha)	46.13	45.29	44.90	63.93
	Sample SD	12.89	14.76	16.31	15.05