

Table S1. Years-long dynamics of radial increment of *Betula pendula*.

Year	Average annual ring width, mm	Year	Average annual ring width, mm	Year	Average annual ring width, mm
1957	0.84 ± 0.25	1977	3.56 ± 0.93	1997	3.36 ± 0.45
1958	3.28 ± 1.59	1978	4.89 ± 2.09	1998	3.05 ± 0.75
1959	3.69 ± 0.91	1979	4.97 ± 1.00	1999	3.99 ± 0.02
1960	3.48 ± 0.57	1980	3.36 ± 0.76	2000	2.50 ± 0.54
1961	3.96 ± 1.02	1981	4.94 ± 1.18	2001	2.92 ± 0.63
1962	4.62 ± 1.48	1982	4.27 ± 0.88	2002	3.13 ± 0.72
1963	3.05 ± 0.24	1983	3.59 ± 1.12	2003	3.51 ± 1.26
1964	2.70 ± 0.31	1984	3.15 ± 0.67	2004	2.68 ± 0.68
1965	4.41 ± 0.43	1985	3.68 ± 1.01	2005	2.72 ± 0.26
1966	3.96 ± 1.35	1986	4.72 ± 1.75	2006	2.72 ± 0.14
1967	3.84 ± 0.35	1987	3.99 ± 0.96	2007	2.77 ± 0.32
1968	3.10 ± 1.56	1988	3.00 ± 0.24	2008	3.31 ± 0.34
1969	5.32 ± 1.06	1989	4.44 ± 0.29	2009	3.53 ± 0.17
1970	3.94 ± 1.03	1990	3.08 ± 0.63	2010	2.93 ± 0.58
1971	5.52 ± 1.24	1991	3.06 ± 0.85	2011	2.90 ± 0.82
1972	4.84 ± 1.82	1992	3.23 ± 0.52	2012	2.50 ± 0.12
1973	4.37 ± 1.54	1993	3.94 ± 1.67	2013	2.49 ± 0.35
1974	3.53 ± 0.52	1994	3.26 ± 1.33	2014	1.42 ± 0.54
1975	4.67 ± 1.01	1995	3.31 ± 0.32	2015	1.54 ± 0.59
1976	4.16 ± 0.78	1996	2.98 ± 0.43		
Mean: 3.50 ± 0.12					

Table S2. Years-long dynamics of radial increment of *Ulmus glabra*.

Year	Average annual ring width, mm	Year	Average annual ring width, mm	Year	Average annual ring width, mm
1966	3.55 ± 1.07	1983	5.18 ± 1.06	2000	4.65 ± 1.52
1967	5.72 ± 1.12	1984	4.85 ± 0.86	2001	4.25 ± 1.26
1968	5.85 ± 1.52	1985	4.57 ± 0.96	2002	3.23 ± 1.01
1969	5.55 ± 1.03	1986	5.13 ± 1.07	2003	4.34 ± 0.56
1970	3.59 ± 0.76	1987	4.34 ± 1.06	2004	3.06 ± 1.14
1971	5.21 ± 0.91	1988	3.75 ± 0.40	2005	4.13 ± 1.51
1972	4.24 ± 1.48	1989	4.34 ± 0.30	2006	2.86 ± 0.33
1973	4.91 ± 1.10	1990	3.39 ± 0.54	2007	3.21 ± 0.98
1974	4.14 ± 0.71	1991	3.34 ± 0.92	2008	2.72 ± 0.44
1975	4.25 ± 0.94	1992	4.27 ± 0.92	2009	3.65 ± 0.63
1976	4.96 ± 0.80	1993	4.86 ± 1.16	2010	3.49 ± 1.18
1977	3.88 ± 0.73	1994	3.89 ± 0.91	2011	3.09 ± 1.14
1978	6.21 ± 1.54	1995	3.50 ± 0.26	2012	2.65 ± 0.64
1979	5.14 ± 0.89	1996	3.53 ± 0.43	2013	2.55 ± 0.76
1980	3.63 ± 0.87	1997	3.17 ± 1.17	2014	2.67 ± 0.95
1981	5.27 ± 0.90	1998	3.17 ± 0.51	2015	2.30 ± 0.62
1982	5.41 ± 1.21	1999	3.98 ± 0.15		
Mean: 4.07±0.14					

Table S3. Years-long dynamics of radial increment of *Quercus robur*.

Year	Average annual ring width, mm	Year	Average annual ring width, mm	Year	Average annual ring width, mm
1957	2.68 ± 2.29	1977	3.38 ± 0.31	1997	3.22 ± 0.91
1958	2.96 ± 2.51	1978	4.73 ± 0.72	1998	3.03 ± 1.02
1959	2.68 ± 1.18	1979	4.17 ± 0.72	1999	2.70 ± 0.94
1960	2.60 ± 1.18	1980	3.21 ± 0.32	2000	2.78 ± 0.66
1961	3.91 ± 1.24	1981	3.95 ± 0.80	2001	3.31 ± 0.88
1962	3.88 ± 0.66	1982	3.28 ± 0.65	2002	3.11 ± 0.71
1963	3.11 ± 0.79	1983	3.31 ± 0.39	2003	2.75 ± 0.72
1964	2.47 ± 0.93	1984	3.40 ± 0.83	2004	2.81 ± 0.65
1965	4.20 ± 1.22	1985	2.87 ± 0.68	2005	2.55 ± 0.99
1966	4.90 ± 0.78	1986	2.86 ± 0.71	2006	3.44 ± 0.92
1967	5.93 ± 0.71	1987	3.57 ± 1.05	2007	3.22 ± 1.18
1968	4.03 ± 1.11	1988	3.94 ± 0.63	2008	3.08 ± 1.07
1969	5.03 ± 0.32	1989	4.32 ± 1.48	2009	2.99 ± 0.91
1970	5.28 ± 0.30	1990	3.32 ± 0.88	2010	3.38 ± 1.18
1971	4.92 ± 0.59	1991	2.90 ± 0.90	2011	2.86 ± 0.91
1972	3.99 ± 0.76	1992	3.42 ± 1.21	2012	2.77 ± 1.03
1973	3.80 ± 0.63	1993	3.48 ± 0.97	2013	2.05 ± 0.50
1974	4.82 ± 0.22	1994	3.09 ± 1.08	2014	2.65 ± 0.73
1975	5.38 ± 0.61	1995	3.17 ± 0.94	2015	2.17 ± 0.49
1976	4.81 ± 1.24	1996	3.64 ± 1.03		
Mean: 3.50 ± 0.11					

Table S4. Years-long dynamics of radial increment of *Tilia cordata*.

Year	Average annual ring width, mm	Year	Average annual ring width, mm	Year	Average annual ring width, mm
1934	2.53 ± 0.55	1962	2.78 ± 0.40	1990	1.34 ± 0.14
1935	3.08 ± 1.39	1963	2.97 ± 0.18	1991	1.63 ± 0.22
1936	4.22 ± 0.50	1964	2.81 ± 0.53	1992	1.81 ± 0.22
1937	3.03 ± 0.99	1965	2.81 ± 0.68	1993	1.86 ± 0.26
1938	3.90 ± 1.67	1966	3.02 ± 0.57	1994	1.66 ± 0.28
1939	4.37 ± 0.10	1967	2.23 ± 0.30	1995	1.85 ± 0.29
1940	2.49 ± 0.50	1968	2.77 ± 0.24	1996	1.71 ± 0.23
1941	3.03 ± 0.89	1969	2.83 ± 0.39	1997	1.23 ± 0.25
1942	3.75 ± 0.02	1970	2.68 ± 0.62	1998	1.52 ± 0.34
1943	2.21 ± 0.37	1971	2.40 ± 0.56	1999	1.63 ± 0.31
1944	2.63 ± 1.11	1972	2.19 ± 0.47	2000	1.94 ± 0.37
1945	3.06 ± 0.79	1973	2.44 ± 0.36	2001	1.86 ± 0.39
1946	3.11 ± 0.08	1974	2.29 ± 0.35	2002	1.28 ± 0.38
1947	2.70 ± 0.20	1975	2.07 ± 0.32	2003	1.76 ± 0.45
1948	3.51 ± 0.53	1976	2.29 ± 0.38	2004	1.28 ± 0.28
1949	2.92 ± 0.55	1977	2.61 ± 0.55	2005	1.40 ± 0.27
1950	3.81 ± 0.30	1978	2.78 ± 0.37	2006	1.22 ± 0.19
1951	3.73 ± 0.44	1979	2.22 ± 0.28	2007	1.23 ± 0.22
1952	3.91 ± 0.65	1980	2.92 ± 0.21	2008	1.69 ± 0.42
1953	3.57 ± 0.47	1981	3.07 ± 0.59	2009	1.87 ± 0.51
1954	3.45 ± 0.39	1982	1.84 ± 0.35	2010	1.80 ± 0.38
1955	2.81 ± 0.44	1983	2.02 ± 0.36	2011	1.05 ± 0.23
1956	2.68 ± 0.28	1984	2.32 ± 0.31	2012	1.40 ± 0.19
1957	3.11 ± 0.22	1985	2.29 ± 0.56	2013	1.09 ± 0.35
1958	2.87 ± 0.29	1986	1.57 ± 0.31	2014	0.86 ± 0.25
1959	3.29 ± 0.52	1987	1.64 ± 0.21	2015	1.20 ± 0.20
1960	2.49 ± 0.41	1988	2.01 ± 0.49		
1961	2.62 ± 0.22	1989	2.54 ± 0.36		
Mean: 2.40±0.09					

Table S5. Years-long dynamics of radial increment of *Picea abies*.

Year	Average annual ring width, mm	Year	Average annual ring width, mm	Year	Average annual ring width, mm
1889	4.62 ± 1.42	1931	1.57 ± 0.36	1974	0.37 ± 0.06
1890	4.85 ± 1.23	1932	1.62 ± 0.39	1975	0.42 ± 0.06
1891	5.52 ± 0.47	1933	2.09 ± 0.62	1976	0.57 ± 0.09
1892	5.64 ± 1.13	1934	2.53 ± 0.77	1977	0.45 ± 0.02
1893	6.14 ± 0.83	1935	2.29 ± 0.82	1978	0.60 ± 0.00
1894	4.45 ± 0.39	1936	2.16 ± 0.96	1979	0.50 ± 0.02
1895	3.98 ± 0.25	1937	1.69 ± 0.77	1980	0.60 ± 0.00
1896	4.87 ± 0.45	1938	1.66 ± 0.66	1981	0.52 ± 0.04
1897	3.58 ± 0.55	1939	1.91 ± 0.71	1982	0.52 ± 0.09
1898	4.85 ± 0.11	1940	2.04 ± 0.82	1983	0.42 ± 0.06
1899	3.80 ± 0.73	1941	1.07 ± 0.34	1984	0.25 ± 0.05
1900	3.26 ± 0.83	1942	0.42 ± 0.04	1985	0.37 ± 0.04
1901	2.56 ± 0.01	1943	0.55 ± 0.07	1986	0.42 ± 0.09
1902	2.83 ± 0.17	1944	0.82 ± 0.09	1987	0.55 ± 0.10
1903	2.01 ± 0.11	1945	1.09 ± 0.00	1988	0.45 ± 0.12
1904	2.41 ± 0.19	1946	0.87 ± 0.09	1989	0.47 ± 0.01
1905	2.34 ± 0.20	1947	0.87 ± 0.06	1990	0.47 ± 0.01
1906	2.61 ± 0.19	1948	0.30 ± 0.05	1991	0.55 ± 0.07
1907	3.23 ± 0.35	1949	0.47 ± 0.11	1992	0.77 ± 0.24
1908	2.51 ± 0.24	1950	0.52 ± 0.01	1993	1.27 ± 0.39
1909	2.63 ± 0.22	1951	0.55 ± 0.02	1994	1.24 ± 0.30
1910	2.63 ± 0.47	1952	0.70 ± 0.00	1995	0.62 ± 0.14
1911	2.34 ± 0.37	1953	0.87 ± 0.19	1996	0.65 ± 0.10
1912	2.24 ± 0.20	1954	1.17 ± 0.36	1997	0.72 ± 0.16
1913	2.44 ± 0.22	1955	1.19 ± 0.37	1998	0.82 ± 0.21
1914	2.06 ± 0.01	1956	1.19 ± 0.32	1999	1.14 ± 0.20
1915	2.39 ± 0.05	1957	0.87 ± 0.24	2000	1.37 ± 0.06
1916	2.09 ± 0.10	1958	0.57 ± 0.11	2001	1.47 ± 0.06
1917	2.16 ± 0.09	1959	0.50 ± 0.12	2002	1.22 ± 0.11
1918	1.69 ± 0.15	1960	0.50 ± 0.07	2003	1.19 ± 0.10
1919	1.94 ± 0.30	1961	0.37 ± 0.09	2004	1.29 ± 0.05
1920	1.57 ± 0.04	1962	0.25 ± 0.10	2005	1.12 ± 0.06
1921	1.86 ± 0.09	1963	0.37 ± 0.11	2006	1.02 ± 0.14
1922	1.37 ± 0.14	1964	0.37 ± 0.06	2007	1.09 ± 0.02
1923	1.54 ± 0.17	1965	0.30 ± 0.07	2008	1.02 ± 0.01
1924	1.99 ± 0.17	1966	0.22 ± 0.01	2009	0.99 ± 0.07
1925	2.98 ± 0.00	1967	0.30 ± 0.05	2010	1.02 ± 0.14
1926	2.61 ± 0.19	1968	0.37 ± 0.01	2011	0.99 ± 0.17
1927	2.09 ± 0.22	1969	0.22 ± 0.04	2012	0.97 ± 0.09
1928	1.52 ± 0.16	1970	0.22 ± 0.09	2013	0.72 ± 0.11
1929	1.39 ± 0.15	1971	0.30 ± 0.10	2014	0.84 ± 0.10
1930	1.34 ± 0.22	1972	0.25 ± 0.05	2015	0.92 ± 0.11
	1.81 ± 0.19	1973	0.32 ± 0.04		
		Mean:	1.52 ± 0.11		

Table S6. Years-long dynamics of radial increment of *Pinus sylvestris*.

Year	Average annual ring width, mm	Year	Average annual ring width, mm	Year	Average annual ring width, mm
1891	2.53 ± 0.26	1933	0.35 ± 0.04	1975	0.35 ± 0.04
1892	2.63 ± 0.27	1934	0.35 ± 0.05	1976	0.25 ± 0.03
1893	3.23 ± 0.33	1935	0.50 ± 0.05	1977	0.15 ± 0.02
1894	3.78 ± 0.38	1936	0.99 ± 0.08	1978	0.25 ± 0.03
1895	3.63 ± 0.37	1937	0.65 ± 0.07	1979	0.30 ± 0.03
1896	4.77 ± 0.48	1938	0.70 ± 0.07	1980	0.55 ± 0.06
1897	5.32 ± 0.54	1939	0.55 ± 0.06	1981	0.35 ± 0.04
1898	6.86 ± 0.69	1940	0.75 ± 0.08	1982	0.15 ± 0.02
1899	5.96 ± 0.60	1941	1.04 ± 0.11	1983	0.15 ± 0.02
1900	5.96 ± 0.50	1942	0.84 ± 0.09	1984	0.40 ± 0.04
1901	6.83 ± 0.68	1943	0.60 ± 0.06	1985	0.20 ± 0.02
1902	6.16 ± 0.62	1944	0.55 ± 0.07	1986	0.30 ± 0.03
1903	6.31 ± 0.64	1945	0.40 ± 0.04	1987	0.20 ± 0.02
1904	6.66 ± 0.67	1946	0.35 ± 0.04	1988	0.20 ± 0.02
1905	3.33 ± 0.34	1947	0.45 ± 0.05	1989	0.10 ± 0.01
1906	4.08 ± 0.41	1948	0.94 ± 0.10	1990	0.20 ± 0.02
1907	4.62 ± 0.47	1949	0.75 ± 0.08	1991	0.15 ± 0.02
1908	3.48 ± 0.35	1950	1.49 ± 0.15	1992	0.25 ± 0.03
1909	3.08 ± 0.31	1951	1.04 ± 0.11	1993	0.15 ± 0.02
1910	2.78 ± 0.28	1952	1.39 ± 0.14	1994	0.35 ± 0.04
1911	2.83 ± 0.29	1953	0.99 ± 0.11	1995	0.35 ± 0.04
1912	2.63 ± 0.27	1954	1.29 ± 0.13	1996	0.30 ± 0.03
1913	1.59 ± 0.16	1955	1.49 ± 0.15	1997	0.25 ± 0.03
1914	0.99 ± 0.10	1956	0.70 ± 0.07	1998	0.10 ± 0.01
1915	1.89 ± 0.19	1957	0.20 ± 0.02	1999	0.20 ± 0.02
1916	1.94 ± 0.20	1958	0.25 ± 0.03	2000	0.15 ± 0.02
1917	2.34 ± 0.24	1959	0.25 ± 0.03	2001	0.20 ± 0.02
1918	2.39 ± 0.24	1960	0.25 ± 0.03	2002	0.20 ± 0.02
1919	1.34 ± 0.14	1961	0.30 ± 0.03	2003	0.15 ± 0.02
1920	2.39 ± 0.24	1962	0.55 ± 0.06	2004	0.15 ± 0.02
1921	2.09 ± 0.21	1963	0.25 ± 0.03	2005	0.10 ± 0.01
1922	1.54 ± 0.16	1964	0.25 ± 0.03	2006	0.35 ± 0.04
1923	1.24 ± 0.13	1965	0.30 ± 0.03	2007	0.40 ± 0.04
1924	0.99 ± 0.11	1966	0.25 ± 0.03	2008	0.25 ± 0.03
1925	1.19 ± 0.12	1967	0.45 ± 0.05	2009	0.30 ± 0.03
1926	0.20 ± 0.02	1968	0.40 ± 0.04	2010	0.25 ± 0.03
1927	0.10 ± 0.01	1969	0.40 ± 0.04	2011	0.30 ± 0.03
1928	0.15 ± 0.02	1970	0.35 ± 0.04	2012	0.25 ± 0.03
1929	0.20 ± 0.01	1971	0.55 ± 0.06	2013	0.25 ± 0.03
1930	0.25 ± 0.03	1972	0.50 ± 0.05	2014	0.25 ± 0.03
1931	0.40 ± 0.04	1973	0.60 ± 0.06	2015	0.35 ± 0.04
1932	0.30 ± 0.03	1974	0.10 ± 0.01		
Mean: 1.13 ± 0.14					

Table S7. Years-long dynamics of the maximum water level in the Rybinsk Reservoir.

Year	Water-level, m	Year	Water-level, m	Year	Water-level, m
1949	101.85	1972	100.52	1995	102.00
1950	101.31	1973	100.14	1996	99.68
1951	102.08	1974	101.77	1997	101.74
1952	99.99	1975	101.03	1998	101.62
1953	102.09	1976	101.81	1999	101.23
1954	100.50	1977	101.93	2000	101.43
1955	102.45	1978	101.80	2001	101.73
1956	101.55	1979	102.06	2002	101.68
1957	102.13	1980	101.24	2003	101.41
1958	102.13	1981	101.78	2004	101.09
1959	102.30	1982	101.68	2005	101.84
1960	100.73	1983	101.91	2006	101.68
1961	102.21	1984	101.62	2007	101.81
1962	102.27	1985	101.87	2008	101.85
1963	101.18	1986	101.77	2009	101.81
1964	101.04	1987	101.89	2010	101.92
1965	101.82	1988	101.48	2011	101.87
1966	102.48	1989	101.16	2012	101.81
1967	101.80	1990	101.74	2013	101.90
1968	101.91	1991	101.78	2014	100.67
1969	101.66	1992	101.33	2015	101.09
1970	102.12	1993	101.26		
1971	101.42	1994	101.49		

Mean: 101.58±0.07

Table S8. Indicators of the monthly mean temperature by months [.

Year	May, t °C	June, t °C	July, t °C	August, t °C	Average temperature of warm period, t °C
1955	7.40	12.60	16.70	16.00	13.18
1956	8.90	18.00	13.50	13.20	13.40
1957	11.70	13.90	18.60	16.30	15.13
1958	8.90	12.70	14.80	14.40	12.70
1959	9.50	16.00	18.80	16.40	15.18
1960	10.40	16.50	21.00	15.80	15.93
1961	10.10	18.00	17.60	15.20	15.23
1962	11.00	11.90	16.00	13.00	12.98
1963	14.80	11.90	17.00	16.00	14.93
1964	10.00	16.00	18.30	14.90	14.80
1965	7.10	15.40	15.20	14.50	13.05
1966	12.30	16.10	17.80	14.90	15.28
1967	12.80	15.10	17.00	17.80	15.68
1968	9.80	16.50	14.30	16.40	14.25
1969	7.50	12.80	16.50	15.00	12.95
1970	10.10	15.20	18.40	15.30	14.75
1971	9.80	14.60	16.30	15.40	14.03
1972	9.50	17.10	21.10	19.80	16.88
1973	11.20	17.20	18.00	14.60	15.25
1974	6.60	16.10	18.90	15.10	14.18
1975	13.70	14.50	17.80	13.90	14.98
1976	9.50	12.00	15.50	13.10	12.53
1977	11.90	15.60	17.70	14.90	15.03
1978	9.10	13.00	15.40	13.80	12.83
1979	13.50	14.50	16.30	16.20	15.13
1980	7.00	17.80	15.90	13.40	13.53
1981	11.00	16.60	20.00	16.50	16.03
1982	10.40	11.60	17.60	14.80	13.60
1983	13.00	14.50	18.00	14.20	14.93
1984	13.60	14.00	16.30	13.10	14.25
1985	10.10	12.30	15.60	17.30	13.83
1986	10.00	15.90	16.10	13.30	13.83
1987	10.50	15.70	15.20	13.20	13.65
1988	11.50	16.90	20.00	14.70	15.78
1989	11.30	18.60	17.40	14.60	15.48
1990	7.70	13.10	16.00	14.60	12.85
1991	11.10	16.60	15.90	13.90	14.38
1992	9.70	13.50	16.40	14.70	13.58
1993	11.60	12.40	15.50	13.20	13.18
1994	7.70	13.40	15.90	13.60	12.65
1995	11.70	17.60	14.70	14.30	14.58
1996	9.80	14.20	16.30	14.60	13.73
1997	8.00	16.30	16.60	15.30	14.05
1998	11.20	17.40	17.30	13.40	14.83

1999	6.20	19.10	19.50	13.90	14.68
2000	8.70	14.50	19.00	14.20	14.10
2001	9.20	14.70	20.20	13.50	14.40
2002	9.60	14.90	19.90	14.30	14.68
2003	12.20	11.50	19.50	15.40	14.65
2004	9.60	13.50	17.60	15.80	14.13
2005	12.30	14.80	17.80	15.30	15.05
2006	10.50	16.70	16.00	15.40	14.65
2007	12.30	13.40	17.00	17.70	15.10
2008	9.40	13.30	17.10	15.20	13.75
2009	11.40	15.20	17.00	14.70	14.58
2010	14.30	15.60	23.30	17.70	17.73
2011	11.30	16.20	20.90	15.30	15.93
2012	11.90	15.10	18.30	14.80	15.03
2013	13.30	18.00	17.80	16.10	16.30
2014	12.90	14.30	18.40	16.80	15.60
2015	12.70	15.40	15.50	15.00	14.65
Mean:	10.52	15.05	17.38	15.01	14.49
SD	1.98	1.91	1.88	1.36	1.08
Interval of fluctuations	8.50	7.60	9.80	6.80	5.20
Minimum	6.20	11.50	13.50	13.00	12.53
Maximum	14.70	19.10	23.30	19.80	17.73