

Supplementary Information

A 180-year-long isotopic record of tree-ring cellulose on Okinawa Island, Japan

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Supplementary Figures S1 and S2

Supplementary Table S1 and S2

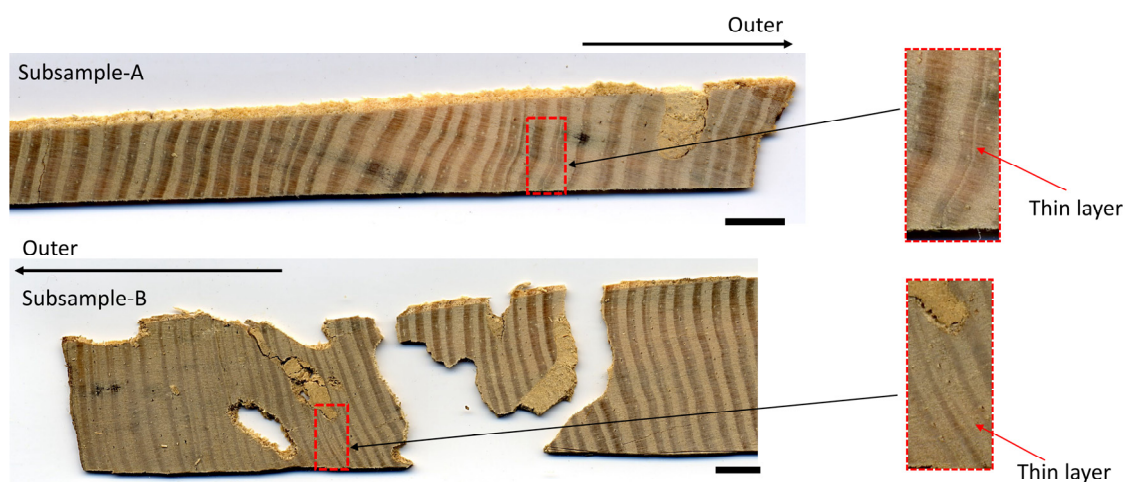


Fig S1. Photos of ambiguous tree-ring structures of FJY sample and their enlarged views

Black scale bar represents 5 mm.

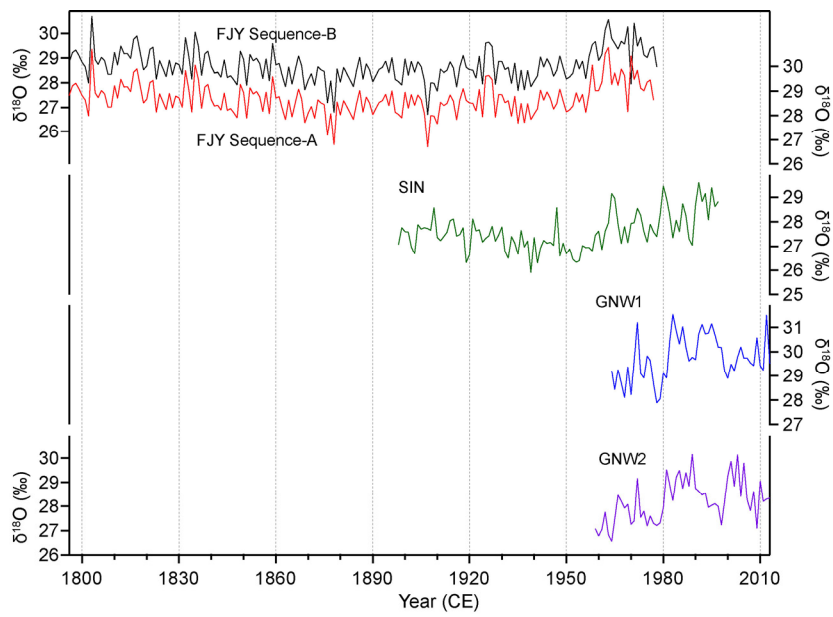


Fig S2. Oxygen isotope time-series of four Okinawa tree samples

Table S1 Oxygen isotope data for Sequence B of FJY sample

Year (CE)	$\delta^{18}\text{O}$ (‰)	Year (CE)	$\delta^{18}\text{O}$ (‰)	Year (CE)	$\delta^{18}\text{O}$ (‰)	Year (CE)	$\delta^{18}\text{O}$ (‰)	Year (CE)	$\delta^{18}\text{O}$ (‰)	Year (CE)	$\delta^{18}\text{O}$ (‰)
1978	28.6	1946	28.3	1914	28.8	1882	28.4	1850	28.9	1818	29.2
1977	29.5	1945	28.7	1913	28.5	1881	28.6	1849	29.3	1817	29.9
1976	29.4	1944	29.0	1912	28.4	1880	28.0	1848	27.9	1816	29.8
1975	29.0	1943	28.6	1911	28.5	1879	28.6	1847	28.1	1815	29.0
1974	29.1	1942	29.0	1910	27.7	1878	26.8	1846	28.3	1814	29.2
1973	29.8	1941	28.3	1909	28.0	1877	28.1	1845	28.2	1813	29.2
1972	29.5	1940	28.1	1908	28.0	1876	27.2	1844	28.9	1812	29.5
1971	30.4	1939	27.8	1907	26.7	1875	28.5	1843	28.2	1811	28.7
1970	27.9	1938	28.5	1906	28.1	1874	28.5	1842	28.4	1810	29.2
1969	30.3	1937	27.7	1905	28.6	1873	28.6	1841	28.4	1809	28.3
1968	29.6	1936	28.5	1904	28.8	1872	27.9	1840	28.7	1808	28.3
1967	29.7	1935	27.7	1903	28.4	1871	28.4	1839	29.3	1807	28.9
1966	29.4	1934	28.8	1902	28.9	1870	28.1	1838	29.2	1806	29.0
1965	29.6	1933	28.0	1901	28.3	1869	27.7	1837	28.3	1805	28.7
1964	29.8	1932	28.6	1900	29.0	1868	28.7	1836	29.5	1804	28.9
1963	30.6	1931	28.5	1899	27.9	1867	29.1	1835	30.1	1803	30.7
1962	30.1	1930	28.9	1898	28.0	1866	28.5	1834	28.1	1802	28.0
1961	29.1	1929	28.9	1897	28.1	1865	27.9	1833	29.1	1801	28.6
1960	28.9	1928	27.9	1896	29.0	1864	28.6	1832	29.8	1800	28.8
1959	29.7	1927	29.5	1895	28.4	1863	27.8	1831	28.3	1799	29.1
1958	29.5	1926	29.6	1894	28.9	1862	28.3	1830	28.7	1798	29.3
1957	29.1	1925	29.6	1893	28.6	1861	28.8	1829	28.8	1797	29.2
1956	28.2	1924	27.9	1892	28.5	1860	28.7	1828	28.3	1796	28.8
1955	28.9	1923	29.1	1891	28.3	1859	29.6	1827	28.9		
1954	28.6	1922	28.2	1890	28.0	1858	28.1	1826	28.3		
1953	28.9	1921	28.5	1889	28.5	1857	29.0	1825	28.6		
1952	28.4	1920	28.5	1888	28.8	1856	28.2	1824	28.9		
1951	28.2	1919	28.6	1887	28.1	1855	28.8	1823	28.1		
1950	28.2	1918	29.1	1886	29.0	1854	29.0	1822	29.4		
1949	28.6	1917	28.7	1885	28.5	1853	28.9	1821	29.3		
1948	29.1	1916	27.8	1884	27.9	1852	29.1	1820	28.7		
1947	28.5	1915	28.6	1883	28.1	1851	27.9	1819	28.5		

Table S2 Oxygen isotope data for Sequence A of FJY sample

Year (CE)	$\delta^{18}\text{O}$ (‰)	Year (CE)	$\delta^{18}\text{O}$ (‰)
1977	28.6	1966	29.2
1976	29.5	1965	29.7
1975	29.4	1964	29.3
1974	29.0	1963	30.8
1973	29.1	1962	30.5
1972	29.8	1961	29.4
1971	29.5	1960	29.0
1970	30.4	1959	29.0
1969	28.2	1958	30.1
1968	29.6	1957	28.9
1967	29.9		

*Data between 1796 and 1956 CE are the same as those of Sequence B in Table S1