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**ANTHROPOGENIC CO2  EMISSION RECORDS IN SCOTS PINE GROWING IN THE**

**MOST INDUSTRIALIZED REGION OF POLAND FROM 1975 TO 2014 1**

**by Barbara Sensuła • Adam Michczyński • Natalia Piotrowska • Sławomir Wilczyński**

**Captions to supplemental online figures**

Figure S1. Sampling sites located in three regions: Dabrowa Gornicza ()near Huta Katowice (HK; 50°20'31"N 19°16'1"E), Kedzierzyn-Kozle near chemical factories (KK; 50°18′20″N 18°15′27″E) and Laziska near a combined heat and power plant (LA; [50°07′58″N 18°50′47.1″E](https://tools.wmflabs.org/geohack/geohack.php?language=pl&pagename=Elektrownia_%C5%81aziska&params=50_07_58.0_N_18_50_47.1_E_type:city)).

Figure S2. Site tree-ring width chronologies with the long-term reduction of radial increments (left *y*-axis) and CO2 emission (right *y*-axis) in Poland (Boden et al. 2016)

Figure S3. Dependence of mean tree-ring width (TRW, mm) in the period of low-emission (pre-depression), in the culmination of emission period (depression of radial increment), and in the reduction of emission period (recovery of trees), for 11 pine sites.

Figure S4. Spatial and temporal variation of δ13C in pine growing in forests located in three regions: Dabrowa Gornicza near Huta Katowice (HK), Kedzierzyn-Kozle near chemical factories (KK) and Laziska near a combined heat and power plant (LA); (cor-corrected δ13C value) and dilution of the 13CO2 due to fossil fuel emission: increasing CO2 emissions (Boden et al*.* 2016) decrease δ13C (locally weighted scatterplot smoothing of mean δ13C raw data(Mean) and corrected δ13C values (Mean c) and CO2 emissions)

Figure S5. (a) Variation of the stable carbon isotope composition of tree ring cellulose caused by climate changes and anthropogenic emission of CO2 (measured and modeled value) and (b) total fuel emissions of CO2 (in 106 kg) in each investigated site estimated from a multiple regression model and evaluated national emissions of CO2 according to Boden et al*.* (2016).

Figure S6. Differences (Δ) between Δ14Co and Δ14C tree ring cellulose (a). Decrease in radiocarbon concentrations in tree ring cellulose from three sampling sites: Dabrowa Gornicza near Huta Katowice (HK), Kedzierzyn-Kozle near chemical factories (KK) and Laziska near a combined heat and power plant (LA), and in the atmosphere since 1975–2015 (b), and detailed values since 2000–2012 (c).