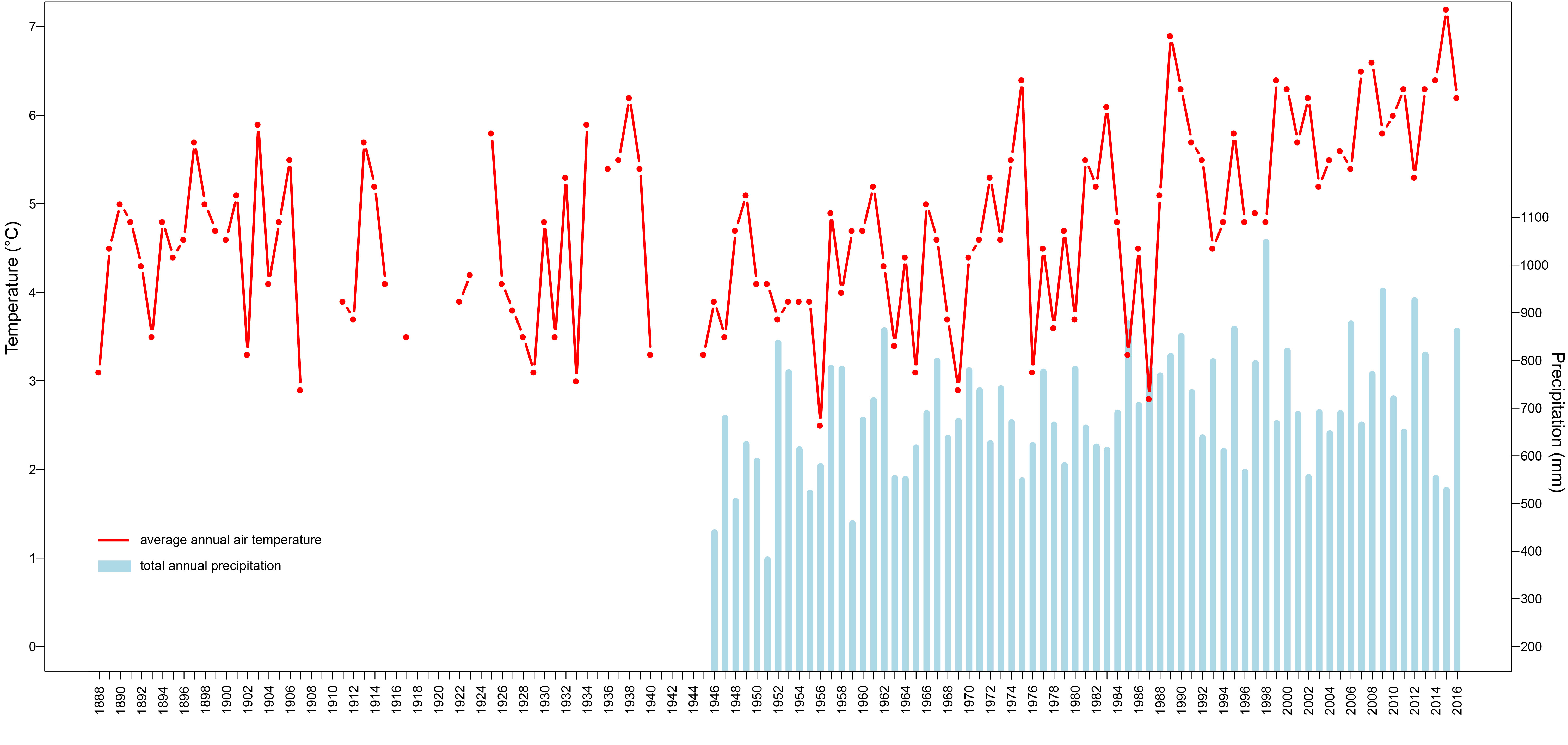
**Supplementary Fig. 1.** Total annual precipitation from 1946 to 2016 and average annual air temperature from the 1888 to 2016 (no data for 1908-1910, 1916,1918-1921, 1924, 1935 and 1941-1944) for Smolensk based on climate data from the Smolensk Meteorological Observatory (Weather and climate, 2016)



|  |  |  |
| --- | --- | --- |
|  | Land-use category | Indicator taxa |
| Human  indicators | Cultivated land | *Secale cereale, Triticum* t., Cerealia undiff., *Zea mays, Centaurea cyanus, Cannabis sativa, Fagopyrum* |
| Ruderals (minor and major) | *Artemisia, Chenopodiaceae, Rumex acetosa/acetosella, Plantago lanceolata, Plantago media, Plantago major, Urtica, Polygonum aviculare, Brassicaceae,* |

**Supplementary Table 1.** List of herbaceous pollen taxa included in the diagram curves