



Deadly Tornadoes in Poland from 1820 to 2015

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Using historical sources derived from 12 Polish digital libraries, an investigation into killer tornado events was carried out. Although some of the cases took place more than 150 years ago, it was still possible to identify tornado phenomena and the course of events. This study has shown that historical sources contain dozens of tornado reports, sometimes with information precise enough to reconstruct the tornado damage paths. In total, 26 newly identified deadly tornado cases were derived from the historical sources and the information on 11 currently known was expanded. An average of 1–2 killer tornadoes with 5 fatalities may be depicted for each decade and this rate is decreasing over time. It was estimated that 5%–10% of significant tornadoes in Poland have caused fatalities and the average number of fatalities per significant tornado was roughly 0.27. Most of the cases were reported in late July and early August. The majority of deaths and injuries were associated with victims being lifted or crushed by buildings (usually a wooden barn). Most of these cases took place in rural areas but some tornadoes hit urban areas, causing a higher number of fatalities. The spatial distribution of cases included maxima in the central lowland and south-central upland of Poland. In a noticeable fraction of cases (38%), large hail occurred either before or after passage of the tornado.