**Supplementary Table F.** Historically documented floods and storm surges in comparison to reconstructed M*i*\*'s; second column from the left: R = river overflow; S = sea ingression; authors: G = Gottschalk 1971; B = Buisman 1995. The first seven columns to the left summarize the findings of these authors, with the column entitled ‘Estimated reliability’ containing their estimation of the reliability of the historical sources. The three columns to the right contain results and interpretations of the present study.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year of flood** | **Type of event** | **Author(s)** | **Description** | **Historical source** | **Estimated reliability** | **Estimated impact on the research area** | **Calendar year of M*i*\*** | **Stress response during above-average growth** | **Inferred situation in the research area** |
| 583 | R | G | Early 583: river floods in France (Seine, Marne) | Gregorius van Tours | Reliable | Possible impact | 583 |  | Inundation |
| 711 | R | G | 711: river floods in France, Germany (Mosel) and Switzerland | Annales Mosellani | Reliable | Possible impact | 710 |  | Inundation already before September-October 710 |
| 784-785 | R | G; B | Late 784, early 785: river floods in France and western Germany (Weser, probably Mosel) | Anales regni Frankorum (Aken) | Reliable | Likely impact | 785 |  | Inundation |
| 800-801 | S | B | 24 December 800: storm surge in England | Simeon of Durham | Uncertain | Uncertain | - |  | No evidence of inundation |
| 809-810 | R | G; B | 28 December 809: river floods in Belgium | Annales S. Amandi | Reliable | Certain impact | - | 810: start of 7-yr negative growth trend | Likely inundation |
| 814-815 | R | G; B | Late 814, early 815: river floods due to abundant rain in the Alps (Rhine) | Annales regni Francorum (Aken) | Reliable | Impact unlikely | 815 |  | Inundation |
| 820 | R | G; B | Summer 820: river flooding in whole of Frankish kingdom due to abundant rain (no seeding possible in autumn) | Annales regni Francorum (Aken) | Reliable | Likely impact | - |  | Uncertain |
| 822 | R | G | Early spring 822: river floods along Rhine | Annales regni Francorum (Aken) | Reliable | Likely impact | - | 822: negative impact (2 yrs.) | Uncertain |
| 834-835 | R | G; B | Spring 834: flooding in France (Seine); late 834, early 835: flooding in western Germany (Rhine) | Astronomus; Annales Xantenses | Reliable | Likely impact | 835 |  | Inundation |
| 838-839 | S | G; B | Storm surge 26th December 838 | Annales Xantenses (Nijmegen) and other sources | Reliable | Likely impact on the whole Dutch coast | - |  | No evidence of inundation |
| 849-850 | R | G; B | Late 849, early 850: flooding in western Germany and Nijmegen (Rhine), and France (mouth Seine) | Annales Xantenses (Nijmegen) and other sources | Reliable | Certain impact | 850 |  | Inundation |
| 858 | R | G; B | May 858: river flood in Belgium (Meuse, Liege); unspecified timing during 858: river floods in Germany (Weser); | Annales Xantenses and other sources | Reliable | Likely impact | 858 |  | Inundation |
| 863 | R | G; B | 863/864: river floods in western Germany (Rhine) | Annales Xantenses (Cologne)? | Probably reliable | Likely impact | - |  | No evidence of inundation |
| 868 | R | G; B | 14/15 February 868: river floods in western Germany (Rhine) | Annales Xantenses (Cologne) | G and B have different assessments of reliability | Uncertain impact | 868 |  | Inundation before March/April 868 |
| 872-873 | R | G; B | Late 872, early 873: river floods in Belgium and in western Germany (Rhine, Weser) | Annales Xantenses (Cologne) | Reliable | Likely impact | - |  | No evidence of inundation |
| 875 | R | G; B | July 875: river flood in western Germany (Main, Frankfurt) | Weikinn | Reliable | Impact unlikely | 876 |  | Inundation |
| 886 | R | G; B | Whole of 886: abundant precipitation, river floods in France (Seine), Switserland, Germany and the Netherlands (Rhine and other rivers) | Annales Fuldenses | Reliable | Certain impact | - | 887: start of 4-yr negative growth trend | Likely inundation |
| 889 | R | B | 889: Rains, hail and floods in Germany (Bayern) | Annales Fuldenses | Reliable | Unlikely impact | 889 |  | Inundation |
| 896 | R | G; B | Early 896: river floods in western Germany (Weser) and Switserland (Alps) | Annales Fuldenses (Alteich) | Reliable | Likely impact | 895 |  | Inundation already during growing season 895 |
| 900 | R | B, correction of G (AD 904) | River floods, locations unclear, given historical sources possibly in the Netherlands | Annales Kapittel St. Marie (Utrecht) | Reliable | Possible impact | 901 |  | Inundation |
| 942 | R | G; B | Fall 942: river flooding of Weser and most likely Rhine | Annales Corbeienses (Corvey) | Reliable | Likely impact | 942 |  | Inundation already before September-October 942 |
| 966 | R | G; B | River floods in northern France | Flodoard of Reims | Reliable | Uncertain impact | - | 967: start of 5-yr negative growth trend | Likely inundation |
| 968 | R | G; B | River floods in western Germany (possibly of Weser and Rhine) | Annales Corbeienses (Corvey) | Reliable | Possible impact | 968 |  | Inundation |
| 986-987 | R | G; B | Late 986, early 987: river floods in western Germany (Rhine, Mosel) | Annales Corbeienses maiores (Cologne) | Reliable | Likely impact | 987 |  | Inundation |
| 987-988 | R | G; B | Late 987, early 988: river floods in Belgium | Sigebert of Gembloux | Reliable | Certain impact | 988 |  | Inundation |
| 989 | - | B | Fall 989: abundant rain, no recorded floods | Sigebert of Gembloux | Probably reliable | Impact unlikely | 990 |  | Inundation |