

Distal tephrochronology of NW Europe – the view from Sweden

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Abstract – *Sigurdur Thorarinsson has inspired generations of tephrochronologists. In his thesis in 1944 he outlined the prospect of finding ash from some of the major Icelandic eruptions in peat bogs in Scandinavia. Since Christer Persson's pioneering work in the 1960s, more than 15 tephra horizons have been identified in distal peat and sediment sequences in Sweden. The most widespread tephra from the Last Glacial-Interglacial transition (LGIT, ca. 15–9 ka BP) is the rhyolitic phase of the Vedde Ash (ca. 12.1 ka BP) which has been found in several sites with lacustrine sediments and uplifted marine clays south of the Younger Dryas moraines. Two significant new additions to the LGIT tephrochronological frameworks of NW Europe are the Hässeldalen (ca. 11.3 ka BP) and Askja-S tephtras (ca. 10.4 ka BP). The most significant mid to late Holocene isochrones in Sweden are Hekla-4 (ca. 4260 BP), Hekla-S/Kebister (ca. 3720 BP), Hekla-3 (ca. 3000 BP) and Askja-1875. Other layers have been identified in single sites and are so far less valuable as marker horizons, but are potentially important for the future.*