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S. EARTHQUAKE ACTIVITY IN FENNOSCANDIA, 1497-1973

The systematic collection of macroseismic data on earthquake occurrence in Fennoscandia began in the 1880's when the use of questionnaires was initiated. Prior to that time macroseismic information is fragmentary and incomplete although the essential data on the larger earthquakes during another 300-400 years have been preserved. Using all pertinent macroseismic and seismograph data available, we have constructed new seismicity maps for Fennoscandia covering the time interval 1497-1973. Since the quality of macroseismic as well as instrumental data is a function of magnitude, we have constructed these maps for different magnitude intervals. Fig. S.1 shows the epicenter distribution for earthquakes with magnitude above 4.5, and the activity has been subdivided in four broadly defined zones; the Telemark-Vänern, the Western Norway, the Bothnian and the Lappland zones. There is no clear correlation between available geological and geophysical information and the earthquake occurrence, and this also applies to the Oslo Graben region. The on-going tectonic processes causing the earthquakes are not at all well-understood, and particularly so since fault plane solutions have not been obtained for any Fennoscandian earthquake.

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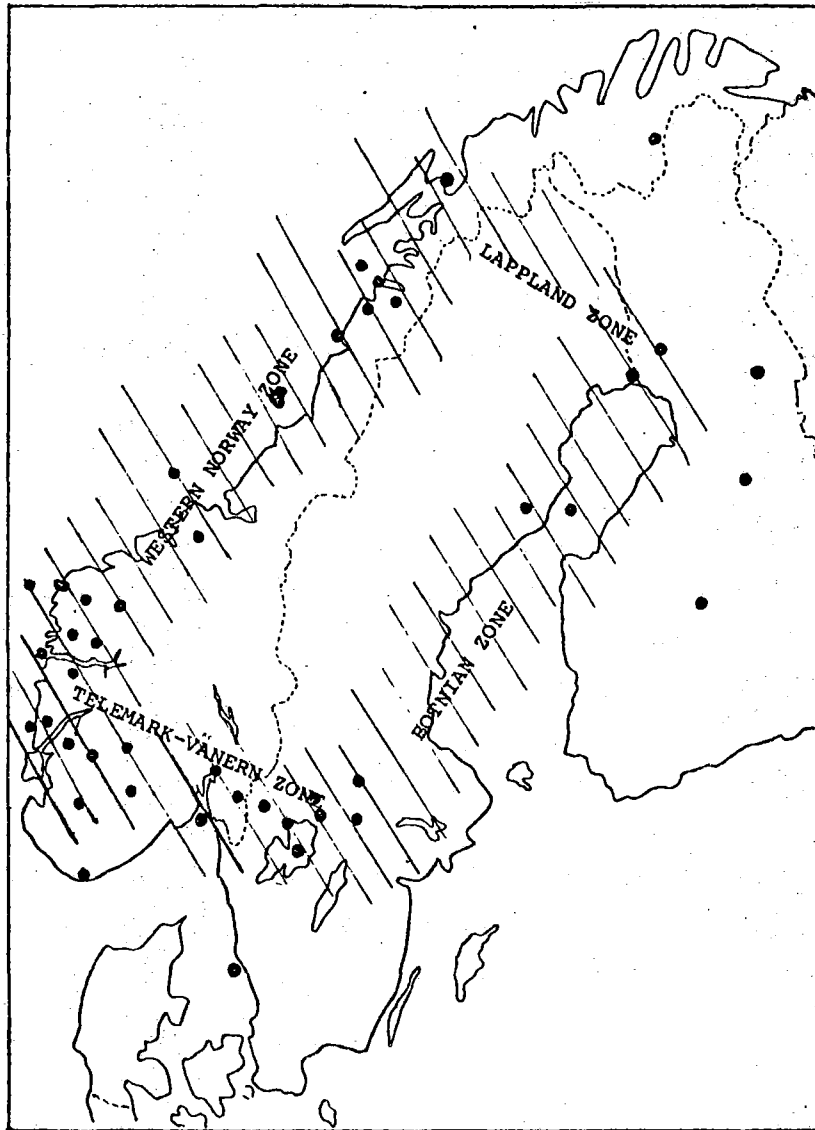


Fig. S.1 Epicenter map of Fennoscandian earthquakes (magnitude ≥ 4.5) for the period 1497-1973. Hatched areas indicate the proposed major seismicity zones.