

Tracing the Pioneers of Scandinavia: drawing inferences from ancient environmental genomics



**Ernst Johnson, PhD student at Centre for Palaeogenetics and
the Department of Geological Sciences, Stockholm University**

Time & place: December 4, 2025 at 15h00. William-Olsson lecture hall, Geohuset

The postglacial recolonization of Fennoscandian flora and fauna was initiated when the land became accessible as the last ice sheet retreated. In northern Sweden, plants are represented in pollen and macrofossil records, but there is no genetic evidence from the first plants, animals or humans in the region, mainly owing to an absence of osteological finds. Previous restraints due to gaps in the fossil record are now being addressed as the use of environmental ancient DNA (aeDNA) is emerging as a powerful tool for reconstructing past ecosystems. Molecular traces of species stored in palaeoarchives, such as lake sediments, can far exceed the preservation of macrofossils, allowing for better spatiotemporal resolution beyond presence or absence. Incorporating genomic data further enables differentiation between populations which can illuminate recolonisation patterns.

In this seminar, two different case studies from early Holocene northern Sweden will be presented along with the approaches used to reach our conclusions.

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Contact information: wei-li.hong@geo.su.se, paola.manzotti@geo.su.se & christian.stranne@geo.su.se



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