

Fluctuations of the western flank of the Scandinavian Ice Sheet during Marine Isotope Stage (MIS) 3

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We describe glaci-lacustrine sediments buried under thick tills in Folldalen, south-east Norway, a site located close to the former center of the Scandinavian Ice Sheet. Thus, the location implies that the entire ice sheet had melted away when the sediments were deposited. The best age estimate from 20 quartz luminescence dates is 55.6 ± 4.6 ka for this Folldalen interstadial (Mangerud et al., 2023).

We consider that the Ålesund Interstadial, dated with more than 30 AMS ¹⁴C dates to 38-34 cal ka BP (Mangerud et al., 2010), is the best dated interstadial during MIS 3. At that time much of western Norway, and possibly areas well inland, were ice free.

A glacial advance across the west coast of Norway during the time interval between the Folldalen and Ålesund interstadials is dated by a paleomagnetic excursion correlated with the Laschamp, well dated to about 41 ka BP (Valen et al., 1995).

Using our new data we will present an updated glaciation curve and compare it with the development of vegetation and climate in western Europe south of the ice sheet.

References

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