

GSA Data Repository Item

Localities and lithostratigraphy of a uniquely extensive late Triassic seismite in the United Kingdom

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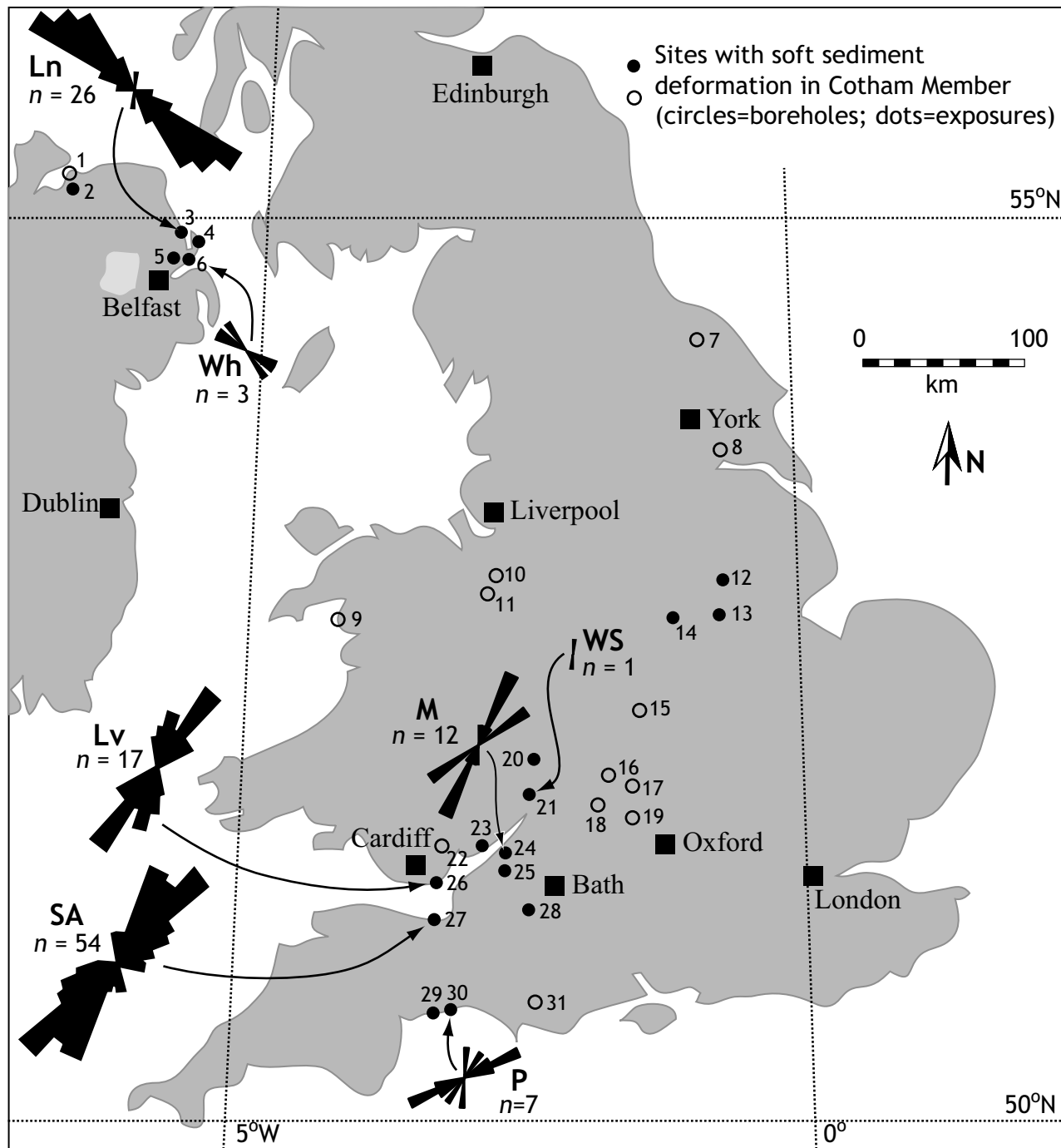


Figure DR1. Location of sites in the United Kingdom at which soft-sediment deformation is pervasive in the Cotham Member of the Penarth Group (Rhaetian). Rose diagrams indicate the orientation of slump fold axes (those for Lavernock [Lv] and St Audrie's Bay [SA] are reproduced from Mayall, 1983). Numbers refer to locations list on p. 2.

Letters in bold refer to sites providing fold axes data:

Ln = Larne **Lv** = Lavernock **M** = Manor Farm Quarry
P = Pinhay Bay **SA** = St. Audrie's Bay **W** = Whitehead
WS = Westbury on Severn

Numbers on Fig. DR1 refer to locations from which soft sediment deformation has been recorded in the Cotham Member (or equivalent) of the Lilstock Formation. Grid references are those of the Ordnance Survey (the national mapping agency of Great Britain) and the Ordnance Survey of Northern Ireland:

- 1 = Magilligan Borehole, Northern Ireland [C 683353] - Bazley et al., 1997
- 2 = The Lynn, Lisnagrib, Northern Ireland [C 709278] - Bazley et al., 1997
- 3 = Waterloo Bay, Larne, Northern Ireland [D 409034] - Ivimey Cook, 1975
- 4 = Cloghfin Port, Islandmagee, Northern Ireland [J 484941] - Griffith and Wilson, 1982
- 5 = Woodburn Glen North, Carrickfergus, Northern Ireland [J 383896] - Griffith and Wilson, 1982
- 6 = Whitehead, Northern Ireland [J 470907] - M.J.Simms, new field observations
- 7 = Eskdale No. 8 Borehole, 10 km WSW of Whitby [grid reference not cited] - Raymond, 1955 [*refers also to deformation of sandstones within the Westbury Formation*]
- 8 = various boreholes - Gaunt et al., 1992
- 9 = Mochras Borehole [SH 55332594] - Harrison, 1971 [*soft-sediment deformation was reported from here in latest Triassic strata which have been correlated, on palynological evidence, with the Penarth Group but are of a facies distinct from typical Penarth Group elsewhere in the United Kingdom*]
- 10 = Wilkesley Borehole [SJ 62864144] - Poole and Whiteman, 1966
- 11 = Plattlane Borehole [SJ 51403645] - Poole and Whiteman, 1966
- 12 = Bantycok Quarry, Newark Upon Trent [SK 813495] - Andrew Swift, pers. comm.
- 13 = Barnstone railway cutting [SK 739358] - Sykes et al., 1970
- 14 = Blue Hill, Owthorpe [SK 682342] - Kent, 1970
- 15 = Warwick area (locations unspecified) - Old et al., 1987 [*refers also to deformation towards top of Westbury Formation in Home Farm Borehole*]
- 16 = Withycombe Farm Borehole, Banbury [SP 43194017] - Poole, 1978
- 17 = Apley Barn Borehole, Witney [SP 34381066] - Poole, 1969
- 18 = Steeple Aston Borehole [SP 46872586] - Poole, 1977
- 19 = Upton Borehole [SP 23151313] - Worssam, 1963
- 20 = Wainlode Cliff, Gloucester [SO 845257] - M.J.Simms, new field observations
- 21 = Garden Cliff, Westbury on Severn [SO 718128] - M.J.Simms, new field observations
- 22 = St. Fagan's Borehole, Cardiff [grid reference not cited] - Mayall, 1983
- 23 = Sedbury Cliff, Chepstow [ST 557932] - M.J.Simms, new field observations
- 24 = Manor Farm Quarry and Aust Cliff [ST 573897] - M.J.Simms, new field observations
- 25 = Filton Bypass Substitute, Bristol [ST 797570 - ST 835606] - Hamilton, 1962
- 26 = Lavernock Point [ST 187682] - Mayall, 1983
- 27 = St. Audrie's Bay [ST 103431], Watchet [ST 081436] and Lilstock [ST 178454] - Mayall, 1983; Warrington and Ivimey Cook, 1995
- 28 = Chilcompton railway cutting [ST 653523] - Duffin, 1980
- 29 = Culverhole Point [SY 894273] - Mayall, 1983
- 30 = Pinhay Bay [SY ST 316905] - Mayall, 1983
- 31 = Winterborne Kingston Borehole [SY 84709796] - Rhys et al., 1982

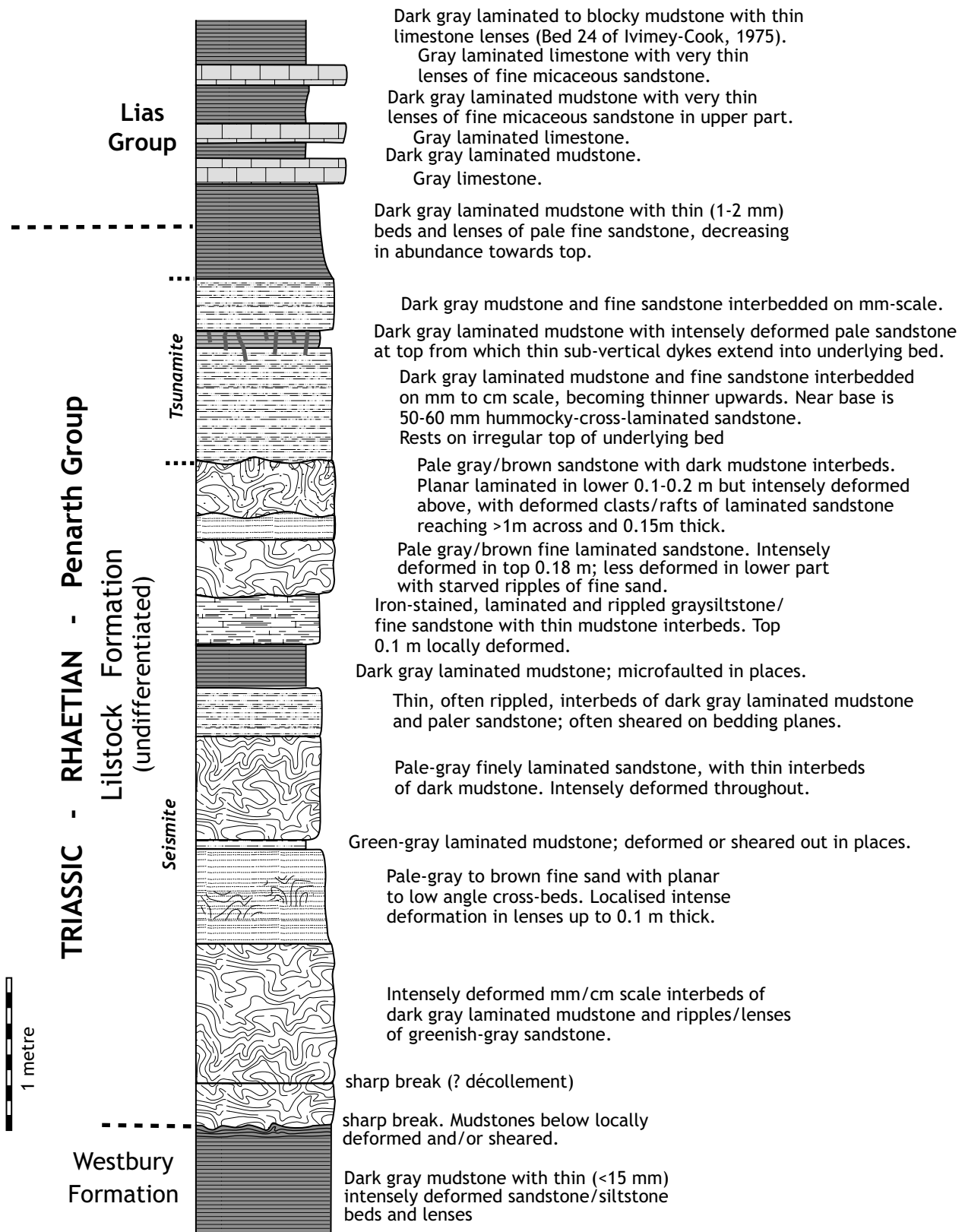


Figure DR2. Summary lithological log of the section exposed at Waterloo Bay, Larne, Co. Antrim, Northern Ireland, July 2001 (site 3 on Fig. DR1). This is the section recorded immediately below the Promenade, but the degree of deformation of individual units varies laterally and they may be difficult to trace continuously across the foreshore. The entire section here has suffered Paleocene thermal metamorphism to low hornfels grade.

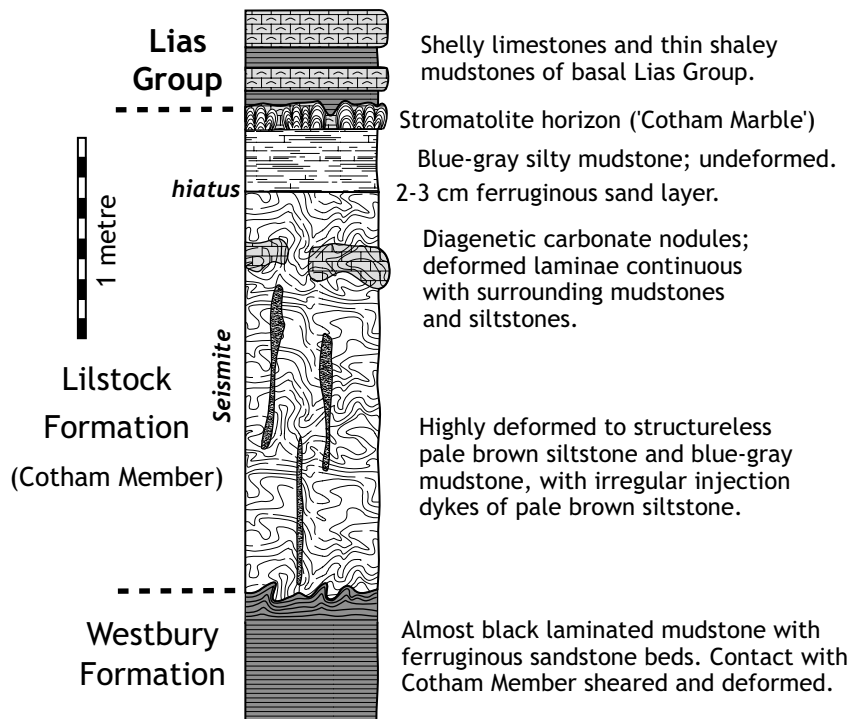


Figure DR3. Summary lithological log of the section exposed at Manor Farm Quarry, nr. Bristol, February 2002 (site 24 on Fig. DR1), drawn to same scale as Fig. DR2.

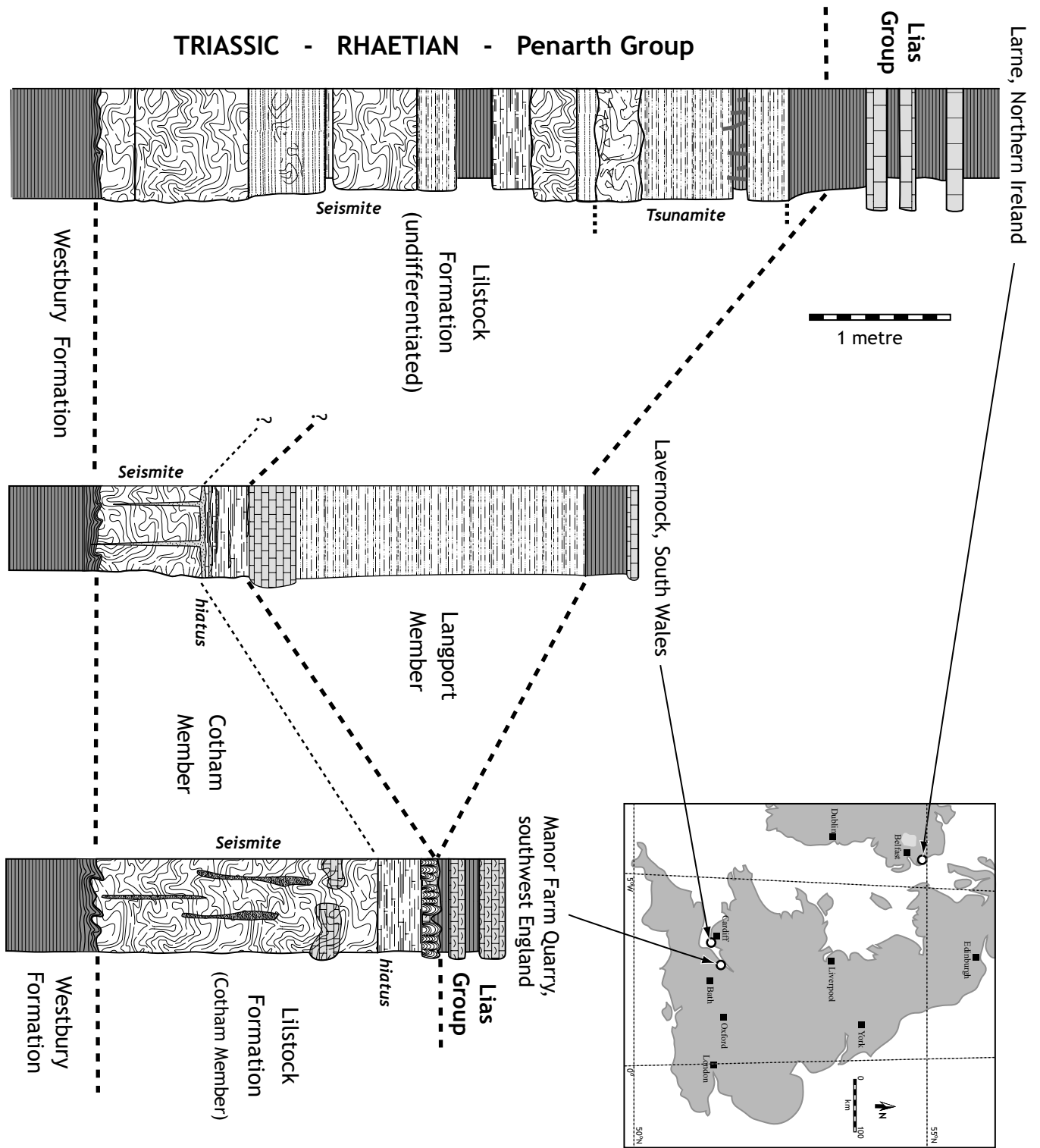


Figure DR4. Summary lithological logs and lithostratigraphical correlation of the sections at Larne (site 3), Lavernock (site 26) and Manor Farm Quarry (site 24). The log for Lavernock has been compiled from Mayall (1983), Warrington and Ivimey-Cook (1995) and my own field observations in February 2002.

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