

Radiocarbon in the Environment Conference, Queen's University Belfast

Broad theme: Techniques in radiocarbon and stable isotopes analysis

Oral session title: Radiocarbon and palaeoenvironmental reconstruction in practice

Keywords: Palaeoenvironmental reconstruction, professional practice, best practice

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Abstract: The session will cover the application of radiocarbon to palaeoenvironmental reconstruction. Recent developments in the application of complex deposit modelling techniques (cf. Parnell et al. 2011; Bronk Ramsey 2008; Blaauw et al. 2007) means that we now have the opportunity to produce increasingly sophisticated approaches to palaeoenvironmental reconstruction. The sophistication of these approaches are sometimes not matched by radiocarbon sample selection for chronological analysis, or stable isotope sample selection for environmental reconstruction, or the use of radiocarbon other than as a chronological tool. For example, selection of samples for radiocarbon dating sometimes still sees plant macrofossils not identified to genus or species level (including water logged wood and wood charcoal), or bulk sediment submitted for measurement with no critical discussion of carbon cycling or accumulation in the measured sample (cf. Chiverrell et al. 2009). It is unclear whether this disconnect derives from a disarticulation between university-based researchers (who have been at the forefront of recent developments in deposit modelling) and consultant professionals (who are working in increasingly financially challenging environment), or whether there are more fundamental issues in terms of doing palaeoecological practice 'in the age of austerity'.

Direction in field sampling protocols is of utmost importance to those conducting palaeoenvironmental research, often affected by time and monetary restraints.

We welcome papers from a range of researchers, including case studies in innovative approaches to the use of radiocarbon measurements for palaeoenvironmental reconstruction from terrestrial, marine and freshwater sites; discussions of factors relevant to best practice; consideration of national science strategies and their implications for practice in the field; and discussion of funding mechanisms for analyses in the 'age of austerity'. We welcome contributions from commercial archaeologists, university researchers, archaeological curators, and independent researchers.

Bibliography

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