FROM THE EDITOR

If your university, institution or laboratory does *not* subscribe to *RADIOCARBON,* this is an excellent issue to show to your local librarian as an argument for their subscribing. The regular-issue articles on Wrangel Island mammoths and new direct dates on Dead Sea Scrolls are topical and have been the focus of recent news releases. Moreover, this issue contains some of the papers presented at the PAGES Chronologies Workshop at the 15th International Radiocarbon Conference in Glasgow. These papers focus on the important interface between calibrated radiocarbon dates and other radiometric methods, and on the transition between glacial and postglacial times. Enjoy.

Good-bye to Pee Dee Belemnite and Standard Mean Ocean Water

The time has come for *RADIOCARBON* to deal with the problem of standardized reporting of stable isotope data: specifically, $\delta^{13}C$, $\delta^{18}O$ and δD values. For all new manuscripts we will ask authors to discontinue the use of PDB and SMOW, and to report carbon, oxygen and water stable isotope values with respect to VPDB and VSMOW, as recommended by the Commission on Atomic Weights and Isotopic Abundances of the International Union of Pure and Applied Chemistry (Coplen 1994). $\delta^{13}C$ in organic material and carbonates will be reported with respect to VPDB. The preferred reference for $\delta^{18}O$ in marine carbonates is VPDB. Authors may also prefer to report freshwater carbonate oxygen isotopes with respect to VPDB. δD and $\delta^{18}O$ in water will be reported with respect to VSMOW. Thus *RADIOCARBON* will join other journals in adopting this standard nomenclature. For laboratories that have already standardized their reporting of $\delta^{13}C_{PDB}$, $\delta^{18}O_{PDB}$, δD_{SMOW} and $\delta^{18}O_{SMOW}$ with respect to NBS-19 and VSMOW, this may not require recalculation of data. Accepted relative values (Coplen 1994) are:

$$^{13}C/^{12}C \text{ of NBS-19} = 1.00195 \times {}^{13}C/^{12}C \text{ of VPDB}$$
$$^{18}O/^{16}O \text{ of NBS-19 (carbonate)} = (1/1.0022) \times {}^{18}O/^{16}O \text{ of VPDB}.$$

For reporting $\delta^{18}O$ and δD of water, laboratories must make sure that they have calibrated with VSMOW (the "zero" reference point) and SLAP ($\delta D_{VSMOW} = -428‰$; $\delta^{18}O_{SMOW} = -55.5‰$), which are available from the International Atomic Energy Agency (IAEA) in Vienna (International Atomic Energy Agency, Isotope Hydrology Section, Wagramerstrasse 5, P.O. Box 100, A-1400, Vienna, Austria.) In these cases also, laboratories are likely already tied in to these references. The addition of the "V" to the reference nomenclature will assure those using the data that they are tied to a common reference material.

We expect that this new nomenclature will help relieve the uncertainties created by the use of the terms PDB and SMOW. PDB was exhausted many years ago, and SMOW has three independent definitions (Coplen 1994). We regret any inconvenience to our authors, but we believe that this elimination of ambiguity and improved comparability of data makes the change worthwhile.

NIST Standard Nomenclature

In the same vein, *RADIOCARBON* will also now require authors to use the oxalic acid standard nomenclature defined and recommended by Currie *et al.* (1989), Currie (personal communication, 1995) and Klinedinst *et al.* (1994). This is, for NIST Oxalic Acid Standard Reference Materials:

Official NIST Designation	Traditional Designation	**New Designation**
SRM 4990 B	Oxalic Acid I	HOxI
SRM 4990 C	Oxalic Acid II	HOxII

Austin Long

REFERENCES

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Currie, L. A., Stafford, T. W., Sheffield, A. E., Klouda, G. A., Wise, S. A. and Fletcher, R. A. 1989 Microchemical and molecular dating. *Radiocarbon* 31(3): 448–463.

Klinedinst, D. B., McNichol, A. P., Currie, L. A., Schneider, R. J., Klouda, G. A., von Reden, K. F., Verkouteren, R. M. and Jones, G. A. 1994 Comparative study of Fe-C bead and graphite target performance with the National Ocean Science (NOSAMS) facility recombinator ion source. *Nuclear Instruments and Methods in Physics Research* B92: 166–171.