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## A preview of the IntCal19 radiocarbon calibration curves

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Radiocarbon calibration curves have been revised and extended many times over the past decades, but the more sophisticated geoscience and archaeological research becomes, the greater the need for improved curves. Fortunately, there has been an explosion of calibration quality data in the last few years as well as considerable progress on statistical methods for curve construction. New <sup>14</sup>C data sets include those from Hulu cave speleothems back to 55 ka BP, late glacial tree-rings from Europe and New Zealand and decadal and single year tree-rings from around the globe. Improved understanding of natural fluctuations in <sup>14</sup>C concentration, their causes, magnitude and timing, will enable a better synthesis of calibration data from different sources. For example, the inclusion of modelled marine reservoir ages derived from a three-dimensional ocean circulation model (Butzin et al. 2017), allows us to apply more appropriate reservoir corrections to the marine <sup>14</sup>C data rather than the constant regional offsets from the atmosphere previously used.

The IntCal Working Group, with valuable input from focus group members, is in the final stages of constructing new curves for the Northern and Southern Hemisphere terrestrial and marine carbon reservoirs with a planned publication date of 2019. A preview of the data that are to be included and a preliminary Northern Hemisphere terrestrial calibration curve will be presented.

Butzin M, Köhler P, Lohmann G. 2017. Marine radiocarbon reservoir age simulations for the past 50,000 years. Geophysical Research Letters 44(16):8473-80.