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Foraminiferal characterization of mid-Upper Jurassic sequences in the Wessex Basin (N.W.Europe).

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The use of foraminifera in the characterization of sequences (systems tracts, maximum flooding surfaces, etc.) has developed over the last decade. Much of this work has been based in the Cenozoic successions of the Gulf of Mexico, although there is a growing application of such data in the Middle East and the North Sea Basin. The easiest surface to characterize has been the maximum flooding surface with its higher diversity and high(er) abundance faunas; the characterization of individual systems tracts has been less successful. Using the well-known mid-Upper Jurassic successions of the Dorset coastal sections, we have investigated a number of high resolution (para)sequences for their foraminiferal content. Using data of foraminiferal diversity and standing crops from a range of modern substrates we have investigated the potential faunas available after deposition, taphonomy, compaction, groundwater dissolution and modern weathering. By understanding the processes involved we have identified the key foraminiferal features of typical mid-Upper Jurassic sequences and indicated how this work may help in the correlation of successions in North Dorset, Normandy and further afield in N.W.Europe.