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Bivalve-barnacle pseudoplanktonic colonisation of wood from the Toarcian, Lower Jurassic, Strawberry Bank Lagerstätte, Somerset, UK

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Pseudoplankton are organisms that are adapted for a mode of life attached to floating objects. In modern oceans common examples are lepadid barnacles, which attach themselves to man-made and natural objects, especially wood logs. In the fossil record, pseudoplankton examples are commonly found in black shales, such as the lower Toarcian *Posidonia* Shale Formation of Germany. Here there are occasional large logs of fossil wood covered in specimens of the inoceramid bivalve *Pseudomytiloides dubius*, with or without specimens of the pentacrinitid crinoid *Seirocrinus subangularis*. Some *Posidonia* Shale logs show evidence of for intra-species succession with younger *S. subangularis* specimens attached onto the stems of older ones. Another example of pseudoplankton from the *Posidonia* Shale is the occurrence of the numerous disarticulated specimens of the phosphatic-shelled eolepadid barnacle *Toarcolepas mutans* associated with a piece of fossil wood, which constitutes the oldest example of pseudoplanktonic barnacles in the fossil record. Here we report a limestone concretion from the lower Toarcian Strawberry Bank Lagerstätte (Ilminster, Somerset, UK) that preserves a piece of fossil wood with a pseudoplanktonic colony comprising at least a hundred specimens of *T. mutans* that attached onto a layer of *P. dubius* bivalves, that had already attached onto the wood. This is one of very few examples of temporal succession for pseudoplankton in the Toarcian and is also unusual in being preserved in a mixed carbonate-siliciclastic facies, rather than a black shale. The occurrence of *T. mutans* in the Strawberry Bank Lagerstätte concretion represents the second record of the species and also the equal oldest example of pseudoplanktonic barnacles in the fossil record.

Key words: Bivalvia, Cirripedia, Crinoidea, fossil wood, pseudoplankton, Strawberry Bank Lagerstätte, Toarcian, Early Jurassic, UK.

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