

## **Jurassic onychites (hooks from squid-like cephalopods) associated with statolith occurrences in the Wessex Basin, southern England**

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Modern coleoid (squid-like) cephalopods have arms that carry arrays of both suckers and hardened, organic hooks. Fossil arm hooks have been known since the description of Sternberg in 1823, although he identified them as plant remains. During the twentieth century there were a number of brief descriptions of hooks but it was Kulicki & Szaniawski (1972) who described 22 morphotypes from the Jurassic of Poland. These authors gave these 'forms' names using a binomial classification though, with many lacking defined (and figured) holotypes and, in some cases, only one recorded specimen, some of their designations should be regarded as invalid. Some of the morphotypes have, however, been reported from DSDP sites on the Falkland Plateau as well as New Zealand, Germany, Poland and the United Kingdom. It is clear that the hooks must belong to widely distributed members of the Belemnitida and Phragmoteuthida.

Exceptional soft-bodied preservation of species such as *Belemnotheutis antiquus* from the Callovian-Oxfordian of the United Kingdom has allowed the identification of the host animal of some morphotypes, though the majority remain non-attributable. In the Christian Malford lagerstätte (Upper Callovian) of Wiltshire large numbers of hooks (including forms described as *Acanthuncus*, *Arites*, *Deinuncus*, *Falcuncus*, *Longuncus* and *Paraglycerites*) are found associated with an abundance of statoliths (cephalopod 'ear bones') and macrofossil evidence of both belemnites and teuthids, some of which includes exceptional soft-bodied preservation (see Wilby et al., 2004, 2008; Hart et al., in press). Using the abundance of material available to us from the Wessex Basin, we are attempting to identify, where possible, the host animals. If this can be established then it should be possible, using micropalaeontological samples, to determine the stratigraphical and palaeoecological ranges of some of the host macro-fossils, many of which are otherwise rarely preserved.

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