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The oldest "intermetamorphic" larva of an achelatan lobster from the Lower Jurassic *Posidonia* Shale, South Germany

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Achelatan lobsters, also known as spiny and slipper lobsters, develop via a highly specialised larval form. This special larva, phyllosoma, is flat, translucent, possesses elongate legs and can grow to enormous sizes. Although these larvae may appear very fragile, they are well-known as fossils. Thousands of specimens have been found in the lithographic limestone of Southern Germany (Tithonian, Upper Jurassic, about 150 mya). At least three types of fossil, but modern-appearing phyllosoma larvae are known. Additionally, fossil larvae that possess only some of the characters of modern-day phyllosoma larvae are known from the same Lagerstätte, but also from the younger limestone beds of Lebanon. Here we report a new achelatan fossil from the older *Posidonia* Shale (Toarcian, Lower Jurassic, 175–183 mya). The specimen shows certain characters of a phyllosoma larva, but other characters appear like those of post-phyllosoma stages of achelatan lobsters. This specimen is therefore the oldest occurrence of an achelatan lobster larva. We compare the new specimen with other fossil larvae with such mixed or "intermetamorphic" morphologies.

Key words: Decapoda, Achelata, phyllosoma, zoea, Jurassic, Germany.

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