

The oldest representative of a modern deep-sea ophiacanthid brittle-star clade from Jurassic shallow-water coral reef sediments

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Ophiurites crinitus is a fossil brittle-star species which passed largely unnoticed since its original description. In this paper, we redescribe the type material of *O. crinitus* with the aim to put it into the context of modern ophiuroid systematics, and propose the new genus name *Ophiosternle* to replace the invalid *Ophiurites*. The re-assessed species is shown to be a member of the extant deep-sea family Ophiacanthidae, articulated fossils of which are extremely rare. It presents greatest affinities with members of the *Ophioplinthaca*–*Ophiocamax*–*Ophiomitra* clade, of which it most probably represents the oldest known fossil species. The depositional environment of the strata, which yielded the described specimens is interpreted as shallow, storm-influenced marine setting in the immediate vicinity of coral reefs. This contrasts with the distribution pattern of extant species of the *Ophioplinthaca*–*Ophiocamax*–*Ophiomitra* clade, which almost exclusively occur at depths exceeding the shelf break.

Key words: Echinodermata, Ophiuroidea, Ophiacanthidae, coral reef, deep-sea group, Jurassic, Mergelstetten Formation, Germany.

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