

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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