

## Large onychites (cephalopod hooks) from the Upper Jurassic of the Boreal Realm

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We report on the discovery of large cephalopod arm hooks (mega–onychites) from the Kimmeridgian and Volgian of Spitsbergen (Agardhfjellet Formation). This includes a largely uncompressed hook in a seep carbonate, with preservation of surface sculpture. We suggest the use of logarithmic spirals as morphological descriptors for the outer part of cephalopod arm hooks, with implications for systematics and functional morphology. Comparison with Upper Jurassic material from Greenland, northern Norway and the North Sea demonstrates a remarkably consistent morphology, which we assign to the same form species, *Onychites quenstedti*. Considering the relatively small stratigraphic (Kimmeridgian–Volgian) and biogeographic (Boreal) range of this large form, it is likely that it represents a single biological species or genus.

**Key words:** Onychites, cephalopod hooks, Jurassic, Spitsbergen, Boreal.

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