



## The hydroid and medusa of *Amphinema rollinsi* (Cnidaria: Hydrozoa), a new species of pandeid from the Monterey Bay Submarine Canyon, USA

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### Abstract

A new species of pandeid hydromedusa is described from the Monterey Bay Submarine Canyon, California. Using a remotely operated vehicle, hydroid colonies were collected from artificial substrates that had been emplaced there at a depth of 1019m for five months. Material was returned alive to the laboratory and placed in culture. Medusae released from the hydroids were raised to maturity. Both hydroids and medusae possessed morphological characters corresponding to the genus *Amphinema*, but neither stage matched descriptions of those of any known species in the genus. *Amphinema rollinsi*, **sp. n.**, is described herein based on characters of the field-collected hydroid colonies and their laboratory-raised medusae.

**Key words:** Leptolida, Pandeidae, deep-sea jellyfish, taxonomy

### Introduction

Hydroid colonies described herein were found growing on artificial substrates that had been placed at a depth of 1019m for five months during 2006 in Monterey Bay Submarine Canyon, California. Live specimens were taken to the Monterey Bay Aquarium jelly laboratory (MBAJ-lab) for culturing. Medusae released from these hydroids were raised to maturity under laboratory conditions. Both polypoid and medusoid stages possessed morphological characters corresponding to *Amphinema* Haeckel, 1879 (Kramp 1961; Bouillon *et al.* 2006), but not with any previously described species of the genus. The purpose of this paper is to provide an account of the hydroid and medusa stages of this species, described herein as *Amphinema rollinsi*, **sp. n.**

### Material and methods

**Sampling.** Hydroids examined here were collected from one of several “bone trees” placed in Monterey Bay Submarine Canyon by the Monterey Bay Aquarium, Monterey, California. Each bone tree consisted of a single vertical main trunk (ca. 1m high) of 2-cm-diameter PVC plastic pipe, with one end cemented into a bucket and the other end pointing upward. The cement-filled buckets served as anchors for the trees when emplaced on the bottom. Two to three cross-bars of 2cm PVC pipe, about 40-50cm in length and about 24cm apart, were affixed to the vertical trunks. Pieces of fresh cow bones (bovine femur) were sawed into lengths of about 12cm and attached with cable ties to branches of the bone tree. These were emplaced at specified sites and for varying periods of exposure in Monterey Bay using the remotely operated vehicle (ROV) *Tiburón*, operated from the R/V *Western Flyer*.