

**MORPHOLOGICAL CHANGES WITH GROWTH IN THE PARALARVAE OF  
THE DIAMONDBACK SQUID *THYSANOTEUTHIS RHOMBUS* TROSCHEL, 1857**

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ABSTRACT: *Thysanoteuthis rhombus* paralarvae ranging from 1.0 to 15.0 mm in dorsal mantle length (DML) are described, based on specimens collected from western Australian waters. Paralarvae smaller than 3.0 mm DML possessed a round mantle with many chromatophores, long tentacles, and small fins. At 3.0–6.0 mm DML, paralarval arms grew rapidly and a primordial protective membrane developed simultaneously. By 15.0 mm DML, the shape of the mantle had become similar to that of an adult, and fins occurred along the entire length of the lateral mantle. Although arm suckers were present, they were not prominent and were absent from the distal one-third of the arms in specimens smaller than 6.0 mm in DML. The development of the protective membranes and the relatively long arms in the post-larval stage may be adaptations for floating in ocean currents rather than for active swimming, and suggest that *T. rhombus* might have a long planktonic phase. The development of beak rostra and the disappearance of lip cilia occurred at 6.0–8.0 mm DML, which may reflect a change in feeding habitat and may define the end of the paralarval stage in *T. rhombus*.

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