

SYMBIOSIS BETWEEN A SEA ANEMONE
AND A SCAPHOPOD: REDUCING THE
DIFFICULTIES OF DEEP SEA LIFE?

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At a site 4100 m deep and 200 km off the California coast, a sea anemone occurs only on shells of living scaphopods; most scaphopods have or have had an anemone. The scaphopod belongs to a new species or possibly a new genus; taxonomy of the anemone is under study. In this soft-bottom habitat, the shell provides a firm substratum for anemone attachment, and the scaphopod may transport the anemone to food. The anemone may protect the mollusc from predation, and may prevent sea water from contacting the shell, which can dissolve readily at this site near the calcium carbonate compensation depth. Because the scaphopod is trawled, we infer it is atypical in living on the surface rather than burrowing into the sediment. This inference is consistent with the anemone's being wrapped around the shell -- carrying the anemone through sediment would be a drag.