

Substrate selection of Christmas tree worms (*Spirobranchus* spp.) in the Gulf of Eilat, Red Sea

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Abstract:

Christmas tree worms (*Spirobranchus* spp.) are prominent sessile organisms inhabiting hermatypic corals in tropical and subtropical reefs. Until recently, most of the larger *Spirobranchus* species were considered to be in obligatory associations with live hermatypic corals. However, recent studies indicate that some *Spirobranchus* species can build tubes on artificial substrate as well and that others may show preferences for using specific species of corals and hydrozoans as substrates. In the present study, we conducted a survey of *Spirobranchus* spp. substrate preference in the Gulf of Eilat. We found seven morphotaxa of *Spirobranchus*, of which two may be a single new species. We show that *Spirobranchus* taxa differ not only in their morphology, but also in their substrate use. Our results demonstrate that the ecological niche of *Spirobranchus* is species-specific, and a putative innate preference exists for some substrates.



