Octopus Paralarvae Abundance Study in the Central-South Puget Sound
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Enteroctopus dofleini (Giant Pacific octopus) and *Octopus rubescens* (East Pacific Red octopus) are the only two species of octopus in the Puget Sound yet little is known about their early life stages. The goals of this study were to monitor these species in their paralarval forms within central-south Puget Sound and to evaluate any correlations between their paralarval abundances and environmental parameters. We hypothesized that East Pacific Reds will have a summer seasonality while Giant Pacifics will have a winter seasonality for their paralarval abundances. Using light-traps in collaboration with the Point Defiance Zoo and Aquarium, the MaST Center Aquarium, and the Nisqually Tribe, we attracted paralarvae with samples being collected four times a week from March 2025 to December 2025 at the three different sites. Octopus paralarvae were identified for species, counted, measured for length, and all other larvae abundances were recorded. Salinity, water temperature, and outdoor temperature were also recorded during each trap collection period. During the sample collection period, paralarvae octopus abundances were found to vary substantially by site, with the Point Defiance Zoo and Aquarium site having significantly more octopus than both Zittle's Marina and the MaST Center sites. At the Point Defiance site, octopus paralarvae were more abundant in the summer months and were larger in the summer months. Pearson correlation tests revealed that there was a significant correlation between paralarvae length and water temperature. All paralarvae collected in the light traps were East Pacific Reds except for one Giant Pacific. The data generated by this study will provide a foundation for better understanding the distribution of early life stage octopus paralarvae within central-south Puget Sound.