

Ma K.C.K., J. Pierrat, J.-F. Hamel & A. Mercier 2025. Unexpected biotic substrata utilized by newly settled recruits of the sea cucumber *Cucumaria frondosa* in their nursery habitat. *SPC Beche-de-mer Inf. Bulletin* 45: 59-62 [open access] (<https://fame.spc.int/node/1970>)

This study follows up on the discovery in 2023 of newly settled recruits and young juveniles of the sea cucumber *Cucumaria frondosa* in shallow waters of Kataapik (at depths less than 2.5 m). Since this initial report, additional surfaces have been discovered to host sea cucumber recruits, including seaweed blades and holdfasts, sea urchin spines, coralline algae, barnacles, encrusting bryozoans, and other bivalves besides mussels in locations like Kataaluk, Kataapik and Katak down to a depth of 3.5 m. The smallest recruits tended to occupy more complex and sheltered surfaces, while larger juveniles gradually moved onto more open ones. This discovery suggests that recruits are flexible and opportunistic in choosing where to settle. Some of the new surfaces identified are more exposed and might provide less protection from predators, which could influence survival rates. Given the high demand for this species and because *C. frondosa* is currently the world's most heavily harvested sea cucumber, with new fisheries being explored in the Arctic, the study highlights the need to protect the full range of shallow nursery habitats, not just rocky or mussel-dominated areas. Safeguarding these diverse substrata is key to ensuring healthy sea cucumber populations and sustainable fisheries.

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