

NEW HOST FOR THE PARASITE WORM ANOPLIDIUM SP. (RHABDITOPHORA: PLATYHELMINTHES) FOUND IN THE SEA CUCUMBER ISOSTICHOPUS FUSCUS (HOLOTHUROIDEA: ECHINODERMATA)

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A flatworm was discovered inside the coelomic cavity of the commercial sea cucumber *Isostichopus fuscus* along the Pacific coast of Mexico. Based on morphological and genetic evidence, it was determined to be *Anoplodium* sp. belonging to class Rhabditophora. The sea cucumber *I. fuscus* constitutes a new host. The flatworms were consistently found on the surface of the haemal vessels and the *rete mirabilis* of 92% of sea cucumbers sampled along the coast of Mazatlan and 88% of sea cucumbers collected in the sea of Cortez. The infestation rate varied from 1 to 725 flatworms per individual, in both male and female sea cucumbers. When more than ~120 *Anoplodium* sp. were counted in a single host, the gonad of the latter were either very small (≤ 1.2 g wet weight or GI < 0.26) or absent, suggesting that this species is detrimental to *I. fuscus* and may be considered parasitic. Combined with the threat of overfishing throughout its distribution range, the discovery of this parasitic infestation in certain areas of the Eastern Pacific could regionally deplete or decimate populations of *I. fuscus*.