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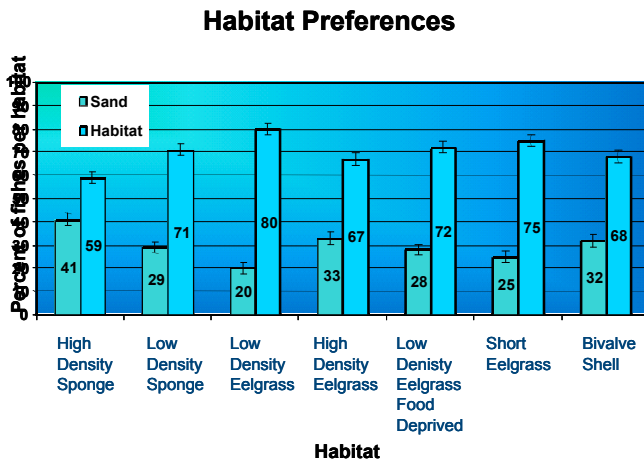
Project: Affinity by English sole for emergent benthic structure.

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Little is known about the essential fish habitat of many commercially important species. Flatfish are generally regarded as selecting between benthic habitats on the basis of temperature, sediment grain size and depth. In this study, intern Inia Mariel Soto Ramos examined whether juvenile English sole demonstrate preference for benthic habitats that contain emergent structure (shell, sponge, seagrass).



Figure Caption: When given the choice between a structured habitat (blue bars) and bare sand (green bars), juvenile English sole consistently demonstrated a preference for the structured habitats (sponge, eelgrass and bivalve shell). Interestingly, more is not always better; fish showed greater preference for structured habitats where the structural elements, i.e. sponge or eelgrass, were less dense. Although juvenile English sole seemed to demonstrate the strongest



preference for eelgrass, a common feature in the estuaries where they reside, the extensive canopy characteristic of eelgrass beds seemed to have no effect upon this preference. Even when the eelgrass was trimmed to a height of 15cm, compared to a normal height of 1m or more, it was still attractive to juvenile fish, suggesting that structure close to the bottom is what these juvenile are attracted to. Lastly, whereas many fish show

decreased association with refuge habitats when they are hungry, juvenile English sole that had been deprived of food for 5 day continued to show the same preference for eelgrass seen in the other treatment, where they have been fed daily. These finding, which hint at the importance of emergent structure as a component of essential fish habitat for juvenile English sole, are currently being followed up by field investigations to whether juvenile English sole also demonstrate a strong affinity for emergent structure in the field.