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Department of Marine Sciences
Presents a Seminar by

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Quantification of Habitat Impacts under Selected Trawl Modifications: A Collaborative Approach to Pressing Management Questions

Bottom trawling has been shown to impact the seafloor, and associated biological communities, around the world. Considerably less is known about the nature of those impacts to the structural attributes of fish habitat, particularly in the unconsolidated sediments of the continental shelf. We quantified the relative impacts of traditional bottom trawl gear and modified trawl gear on the seafloor habitats that form an important component of Essential Fish Habitat (EFH) for many groundfish species on California's continental shelf. We collaborated with commercial fishermen and an NGO to conduct experimental trawling along the 140 m isobaths in an area off Santa Cruz (central coast of California). A remotely operated vehicle (ROV) was used to collect continuous video within two plots –one trawled by traditional gear and one trawled by the modified gear – before and after multiple trawl passes. Results indicate that both gear types produced statistically significant reductions in the numbers of biogenic mounds and depressions in the study plots, with the impact of the traditional bottom trawl exceeding that of the modified trawl for all metrics. Further, the total fuel consumed varied significantly between trawl types, again with the traditional trawl exceeding that of the modified trawl. In the context of on-going efforts to understand and manage fishing impacts, the results of our study suggest that modifications to bottom trawls that focus on minimizing bottom contact can provide the fishing community and managers with a credible option for limiting impacts to the seafloor.

Host: Peter Auster
Time & Date: 11:00 am, Friday, December 8, 2017
Place: Marine Sciences Building, Seminar Room 103

For cancelations and additional seminar information, please see http://marinesciences.uconn.edu/seminar/seminar1178/, email marinesciencesseminars@uconn.edu, or call 860-405-9152 or 860-405-9151