Humboldt Squid (Dosidicus gigas) in the Monterey Bay National Marine Sanctuary: Electronic Tagging Reveals Behavior and Habitat Use

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Humboldt squid have expanded their northern habitat range from Mexico to Alaska. They have been present in Monterey Bay since 1997 (Zeidberg & Robison, 2007), although their abundance fluctuates annually and interannually.

Humboldt squid feed mainly on myctophids and other mesopelagic micronekton. In California, they supplement their diet with Pacific hake, pelagic rockfish, and market squid—all ecologically and economically important species (Field et al. 2007).

Here we report data from the first Humboldt squid tagged in California waters. Our work aims to identify Humboldt squid behaviors in relation to various physical features, as well as to determine their diet and impacts on ecosystems and fisheries. Tagging Humboldt squid in California follows previous tagging studies in Mexico (Gilly et al. 2006; Bazzino et al. 2010) and provides new information on diving behavior and habitat use.

OMZs in California are shoaling, perhaps facilitating the range expansion of Humboldt squid (Bograd et al. 2008).