

Do blue whales (*Balaenoptera musculus*) feed in a size-selective manner on euphausiids?

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Blue whales were observed lunge feeding on euphausiid aggregations by researchers in the Northern Channel Islands in September 2009 and August 2010. To determine if the whales were selectively feeding within the krill patches, euphausiid size composition from bongo tows was compared to the size composition in Blue Whale fecal samples obtained from the same site. Whole euphausiids were measured from the tip of the rostrum to the end of the telson and identified by species, sex, and stage (i.e. furcilia, juvenile, adult.) The aggregations during both years were dominated by *Thysanoessa spinifera*. The total length of the euphausiids from the fecal samples was calculated from right mandible measurements based on a linear regression of total body length to right mandible length from the tow samples. Whole *T. spinifera* furcilia, juvenile, and adults were dissolved in a solution which approximated the pH value of a whale stomach. This allowed us to determine whether smaller mandibles are not found in fecal samples because they break down during digestion or because blue whales are selectively feeding on larger euphausiids.

Begging behavior by the common bottlenose dolphin (*Tursiops truncatus*) near Savannah, Georgia: prevalence, spatial distribution, and social structure

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Illegal feeding of cetaceans, especially the common bottlenose dolphin (*Tursiops truncatus*), has led to begging behavior in many areas worldwide. This behavior involves risks to both humans and dolphins that could lead to injury, illness, or even death. In addition, anthropogenic food sources can lead to changes in social structure within a population. The purpose of this study was to quantify begging behavior, examine spatial variables that may influence the distribution of begging, and examine the social structure of dolphins with respect to begging in the waters around Savannah, Georgia, USA. Surveys were conducted throughout inshore waterways in summer 2009 and 2010. We observed begging on 64% of survey days and in 22% of sightings. A multivariate linear analysis (Mantel test) indicated that beg sightings per km were significantly related to sightings per km ($\rho = 0.898$, $p < 0.001$), mean dolphin group size ($\rho = 0.162$, $p = 0.047$), path distance to fishing piers ($\rho = 0.087$, $p = 0.038$), and space ($\rho = 0.057$, $p = 0.037$); whereas, all other variables (e.g., boat densities and distance to shrimp docks, dolphin tour docks, marinas, and boat ramps) were not significantly correlated to beg sightings per km. Social analyses indicated a well differentiated society; however, there was no clear division between begging and non-begging individuals. Community division by modularity resulted in 5 social clusters, 4 of which contained both beggars and non-beggars. Begging dolphins were mixed throughout the social network, indicating a potential risk of further spread of the behavior through social learning. When compared to other areas with illegal feeding issues, Savannah had the highest rates of begging behavior. The exceptionally high rate and wide spatial and social distribution indicate begging could cause significant problems for the animals near Savannah. In addition, there was no correlation between human usage areas and begging locations; rather, where there were dolphins, there was begging. Finally, in contrast to other locations worldwide, there was no social segregation related to these human-dolphin interactions.

Navy's Fleet Marine Species Monitoring Program: Revisions and Application in the Southern California Range Complex

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The Navy is implementing systematic improvements to regional marine species monitoring in order to increase the likelihood of achieving top-level goals established by NMFS and the Navy. Top-level monitoring goals are described in an Integrated Comprehensive Monitoring Plan (ICMP) that guides the Navy's monitoring effort. In addition to the framework provided by the ICMP, an independent scientific advisory group (SAG) was initiated in October 2010 to provide scientific recommendations on how the Navy's monitoring program could be more effective, evaluate how current monitoring aligns with the ICMP goals, and further refine regional monitoring recommendations. One of the SAG's recommendations was for the Navy to adopt a framework that conceptualizes the continuum of knowledge about marine species. Depending on the species, knowledge may be basic or it may be detailed and sophisticated. The framework starts with information on occurrence of marine mammals on Navy range complexes, and proceeds through questions of exposure to Navy training activities, potential responses of animals to exposure, and consequences (if any) of any interactions. Applying the conceptual framework and SAG recommendations informs the Navy about the appropriate scientific questions that can be addressed within its range complexes and how to prioritize projects and locations when constrained by funding availability. Additional recommendations from the SAG included defining new regulatory metrics, better transparency in planning and implementation, collaboration among stakeholders, and better Navy-wide integration of regional monitoring plans.

SOUTHERN CALIFORNIA MARINE MAMMAL WORKSHOP

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