
Woods Hole Oceanographic Institution
Biology Department Seminar



Thursday, September 24, 2015
Redfield Auditorium – 12:00 Noon

**Omura's whales (*Balaenoptera omurai*) off
northwest Madagascar: a first ecological
description of the species
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The Omura's whale (*Balaenoptera omurai*) was described as a new species in 2003 and then soon after as an ancient lineage basal to a Bryde's/sei whale clade. Currently known only from whaling and stranding specimens primarily from the western Pacific and eastern Indian Oceans, there exist no confirmed field observations or ecological/behavioral data. Here we present the first genetically confirmed documentation of living Omura's whales including descriptions of basic ecology and behavior from northwestern Madagascar. Species identification was confirmed through molecular phylogenetic analyses of biopsies collected from 18 adult animals. All individuals shared a single haplotype in a 402bp sequence of mtDNA control region, suggesting low diversity and a potentially small population. Sightings of 44 groups indicated preference for shallow-water shelf habitat with SST between 26.4° and 29.2° C. Frequent observations were made of lunge feeding, possibly on zooplankton. Observations of four mothers with young calves, and recordings of a song-like vocalization likely indicate reproductive behavior. Social organization consisted of loose aggregations of predominantly unassociated single individuals spatially and temporally clustered. Photographic recapture of a female re-sighted the following year with a young calf suggests site fidelity or a resident population. Our results demonstrate that the species is a tropical whale without segregation of feeding and breeding habitat, and is likely non-migratory; our data extend the range of this poorly studied whale into the western Indian Ocean. Exclusive range restriction to tropical waters is rare among baleen whale species, except for the various forms of Bryde's whales and Omura's whales. Thus, the discovery of a tractable population of Omura's whales in the tropics presents the opportunity for understanding the ecological factors driving potential convergence of life history patterns with the distantly related Bryde's whales.