



# FALL 2013 SEMINAR SERIES

DEPARTMENT OF OCEAN, EARTH, AND ATMOSPHERIC SCIENCES  
3PM – ROOM 200 IN THE OCEANOGRAPHY/PHYSICS BUILDING  
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## “Bdellovibrio and like organisms (BALOs): diversity, niche distribution and bacterial mortality?”

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### ABSTRACT

Bacteriovorax spp. is a halophilic genus belonging to the group of obligate bacterial predators, termed BALOs (Bdellovibrio and like organisms). It is ubiquitous in saltwater systems and preys upon susceptible Gram-negative bacteria. As a member of the highly diverse delta-proteobacteria phylum, the predator is known for its unique biphasic life style in which it searches and attacks its prey in the free living phase; penetrates, grows, multiplies and lyses the prey in the intraperiplasmic phase. Among the phylogenetically defined clusters of Bacteriovorax, there is a pattern of niche distribution which highlights many of them as niche specific and some of them as more versatile. Also, few examples are known for the role of predatory bacteria in bacterial mortality, which has not received much attention or been broadly recognized – as that of viruses. Our studies show conclusive evidence that the BALOs should be included among the agents involved in bacterial mortality. Finally, Bacteriovorax may represent an important unexploited resource for benefits ranging from production of novel compounds to use as therapeutic agents against environmental pathogens to controlling bacterial contaminants in natural and man-made water systems.

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