



Seminar Announcement

Sponsored by:

NMFS/NEFSC, CINAR, and the
Woods Hole Oceanographic Institution ~ AOP&E and Biology Departments

Wednesday June 28

12:15pm

WHOI-NEFSC Special Seminar

Biomass estimates of euphausiids in the Georges Bank region from 1999 – 2012

Dr. Michael Jech (NEFSC)

To be held at the:

NEFSC Stephen H. Clark Conference Room, NOAA Aquarium Building

Abstract:

Euphausiids are a key link between primary production and higher-level trophic levels in the Gulf of Maine, but are not monitored well. Estimates of euphausiid biomass in the Georges Bank region of the Gulf of Maine were derived from annual acoustic/midwater trawl surveys from 1999 through 2012. Acoustic data were collected with Simrad EK500 and EK60 echo sounders operating at 18, 38, and 120 kHz, and euphausiids classified using a combination of empirically- and theoretically based methods. Distorted-Wave Born Approximation (DWBA) scattering predictions of euphausiid target strength and biological metrics were used to scale acoustic data to biomass. We highlight approaches to incorporate DWBA predictions in classification algorithms, with emphasis on the Z-score method. Biomass estimates were compared among classification methods and to depth-stratified quantitative net samples to evaluate whether the acoustically-derived biomass estimates were commensurate with historical estimates. This information can be used to assess the importance of euphausiids in the ecosystem and fill knowledge gaps in our understanding of Gulf of Maine foodwebs.