

**NSCI 6900**  
**MASTER'S RESEARCH FOR COURSE CREDIT**

Number of Credits: 2  
INSTRUCTOR: K.D. Hyrenbach  
MEETING TIME: TBA

STUDENT NAME: Andrew Titmus

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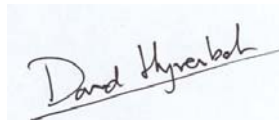
COURSE DESCRIPTION:  
(include problem being addressed, general nature of work done, location of work, other pertinent information)

Andrew Titmus will contribute to the "North Pacific Marine Debris and Seabird Cruise" project, as part of his MSMS research. The goal of this project is to: Analyze concurrent physical oceanography and distributions of marine debris and oceanic birds susceptible to plastic ingestion during Eastern North Pacific research cruises (Honolulu - San Francisco).

Andrew Titmus will be employed for 19 hrs / week working on this project, during the summer (May – August) and the fall (September – December). More specifically, his tasks will involve:

- 1) Characterize the amount and type of plastic in net tows collected by the Sea Education Association during summer (June – July) cruises from Honolulu – San Francisco, during the last 6 years (2003 – 08).
- 2) Model seabird and floating plastic distributions using in-situ (e.g., CTD, underway) and remote sensing (e.g., AVHRR, MODIS) oceanographic data
- 3) Use statistical techniques to identify oceanographic habitats of marine debris concentration and high potential impact on seabirds
- 4) Undertake necropsies of seabirds to investigate the amount and the type of ingested plastic.
- 5) Summarize these results in a manuscript for publication with Dr. Hyrenbach and use these findings to write his MSMS proposal.

In addition to undertaking this work, Andrew will meet with Dr. Hyrenbach (~ 2 hrs / week) to discuss the relevant literature (seabird ecology, North Pacific oceanography, remote sensing, habitat modeling) and (~ 2 hrs / week) to check on the progress / next steps of the research.



(Print) K. David Hyrenbach (Sign)  
THESIS COMMITTEE CHAIR

(Date) May 1, 2008

(Print) \_\_\_\_\_ (Sign) \_\_\_\_\_ (Date) \_\_\_\_\_  
ASSOCIATE DEAN OF MARINE SCIENCE PROGRAMS