

MOVEMENTS OF THE MALE AND FEMALE BLUE SHARK IN  
RESPONSE TO ENVIRONMENTAL CONDITIONS

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By

Michael Colin Davenport Gray

Thesis Advisor

Kevin C. Weng

## Abstract

Quite little is known about the life of the Blue shark, *Prionace glauca*, and its role as a apex pelagic predator. Understanding the environment that the blue shark swims through allows the scientist to make conjectures about why the blue shark migrates in a particular manner. However, constant visual monitoring is too expensive to pursue, therefore, surgically attached Argos tags serve as a cheaper alternative to monitoring aquatic animals. In this study a combination of pop-up archival tags (PAT) and smart-position or temperature tags (SPOT) were used to track the movements of 87 blue sharks from June 24 2002-June 30 2006. Variables such as temperature, latitude, longitude, and light were monitored, while environmental conditions were queried from NOAA's Ocean Watch Server. Using Matlab to combine location and environmental data allows for the development of a physiological ecology for the Pacific North East blue shark. Understanding where the blue shark migrates to and why provides a foundation for further queries such as how can fishing gear be altered to avoid excessive bycatch of the blue shark.