## Marine Molecular Methods Spring 2009

Instructor: Mya Breitbart Date/Time: Thursdays 1-5 PM Location: KRC3120





This course is designed to introduce non-molecular biologists (and non-biologists!) to basic techniques in molecular biology, including DNA extraction, PCR amplification, gel electrophoresis, cloning, fingerprinting techniques, and bioinformatics of sequence data. The class is mostly <u>lab-based and hands-on</u>, with complimentary lectures to explain what you'll be doing in the lab and why it works.

Instead of just learning the methods it's much more meaningful if you can apply them to a real problem in marine science. Throughout the course, we will be using these methods to develop a system for the identification of fish eggs and larvae using DNA barcoding.

This course is designed to be an <u>introductory</u> methods course. If you already have extensive experience working with DNA, PCR amplification and cloning, then you will be bored in this class. But if you are interested in molecular methods and how they might apply to your work, or if you'd just like to be able to read an article in Science and understand what they mean when they say they chose primers, amplified genes by PCR, sequenced genomes, or made phylogenetic trees - then you will learn all that in this class!