

# RACE Seminar Series

January 21, 2014, 10–11 a.m.

Traynor Seminar Room

Bldg 4, Rm 2076



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**Mike Canino**

## DNA Barcoding for Species Identification: Stamp Collecting With Purpose

The use of DNA-based molecular techniques for species identification has expanded tremendously over the last decade. DNA sequence variation from a standardized region of the mitochondrial genome, the so-called 'DNA barcoding' approach, has proven invaluable for species identification in cases where conventional taxonomic approaches are impossible or uninformative, and has aided in the discovery of new species.

The need for accurate species identification in research conducted at the AFSC is centered in two distinct arenas: the eggs and larvae of several fish species routinely surveyed in the GOA and EBS, and the identification of digested prey in food habits studies. In this talk I'll discuss the evolutionary basis for why and how this approach works, demonstrate its application to studies mentioned above, and present the (somewhat more) interesting cases of when it fails.

