

Biology Seminar Series

Biology Graduate Student Association Department of Biological Sciences Humboldt State University

Using molecular tools to measure changes in ecological communities



Dr. Ryan Kelly University of Washington

Friday, December 4th, 12 p.m. (PST) Via zoom

For zoom info, please email the B.G.S.A <u>BioGrad@humboldt.edu</u>

Sequencing DNA derived from environmental samples offers a way of surveying hundreds or thousands of species at a time, across a large range of phylogenetic groups. I'll report results from two recent studies using such community-level sampling in nearshore marine environments. The first of these speaks to warming, acidification, and global change generally, using a gradient of present-day conditions to forecast changes in the planktonic communities of the near-term future. The second speaks to local-scale remediation efforts, finding a biological halo effect of eelgrass beds that appears to discourage dinoflagellates. I use these studies as a springboard to talk about how we measure the impacts of human activities on the environment under the National Environmental Policy Act (NEPA).

