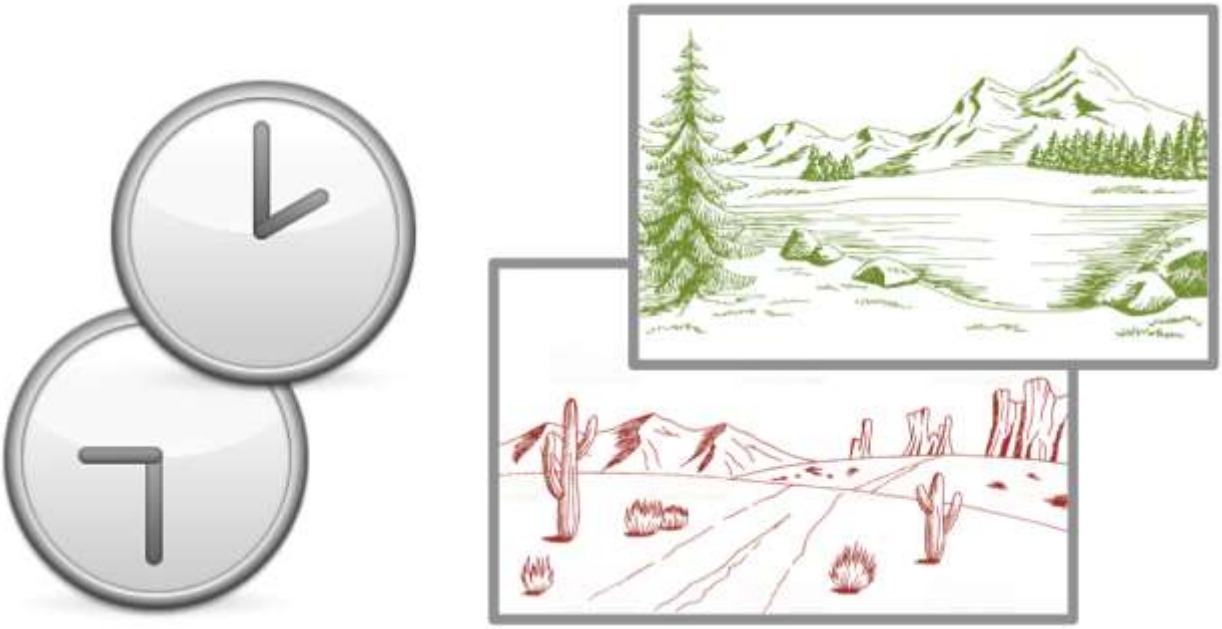
California State University, Fresno, Department of Biology presents

"Comparative biogeography for marine protected area networks, mass mortalities, and jellyfish blooms."



The challenge for biogeography, like other observational sciences, is to extract general relationships representing causes and effects from complex natural data. Approaches must, ultimately, link local scale processes to regional, or even global, scale patterns. Such scaling requires methods that are robust to integration across diverse places and times. I outline our use of comparative biogeography, such as contrasts between synchronously diverging co-distributed species which have potential to clarify the effects of functional traits on population genetic structure, species distributions, and communities. I draw on case studies of marine diseases and jellyfish blooms, and allude to application in designing marine protected area networks.

Michael N. Dawson, PhD

Professor, University of California, Merced.

Friday, October 13, 2017

3:00 – 3:50 PM, Science 2, room 109

For further information: www.csufresno.edu/biology

Bio: Dr. Dawson received his B.Sc. in Marine Biology from the University of Newcastle-Upon-Tyne, followed by an M.S. in Biological Computation from the University of York, and a Ph.D. in Biology from the UCLA (2000). After postdoctoral positions in Australia, California, and Palau, he joined the faculty of UC Merced in 2006. The Dawson lab focuses on elucidating the origins, maintenance, and loss of marine biodiversity (particularly intertidal invertebrates and scyphozoan jellyfishes), from the molecular to the ecosystem level. His specific interests include: How molecular variation explains and causes differences between individuals, populations, species, and higher taxa. How the environment shapes and is shaped by genomic, organismal, population, and community variation. The lab's work scales from micro- to macro-evolution and integrates biological and physical sciences. More information on Mike & his lab can be found at: http://mnd.ucmerced.edu, http://mnd.ucmerced.edu/CV/Dawson_CV.pdf