California State University, Fresno, Department of Biology presents

# "Environmental physiology of Salton Sea fishes"

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**Friday, April 7, 2017**
3:00 – 4:00 PM
Science 2, room 109
For further information: www.csufresno.edu/biology

The Salton Sea, in southern California, is a large inland hypersaline lake with minimal freshwater input and a very rapid evaporation rate. Since its formation in the early 1900s, this lake has increased in salinity from freshwater to 54 g/l. In addition to salinity, the inhabitants of the sea must cope with temperature fluctuations on annual and daily cycles, eutrophication, hypoxia, high ammonia, pesticide residues, arsenic, selenium and sulfite. Despite this list of environmental challenges, the California hybrid of the Mozambique tilapia (*Oreochromis mossambicus*) has continued to maintain a Salton Sea population since the mid-1960s. As one of the most invasive in the world, this species can make physiological adjustments to some of the harshest environmental conditions imaginable. We have extensively studied the salinity tolerance of this species, and with respect to the Salton Sea, it can tolerate much higher level; however the synergistic effects of multiple stressors have not received as much attention. We continue to investigate how this species has adapted its physiology to survive in this remarkable system.