

# AT42-18 R/V Atlantis, HOV Alvin October 2019



# Cruise Objectives

1. Validate a new submersible sensor for measuring a short lived oxygen radical (superoxide;  $O_2^{\bullet-}$ )
2. Measure superoxide associated with deep-sea corals



# Cruise Plan

16 October – 23 October  
Monterey Bay to San Diego, CA

## 6 Dives

Monterey Bay National Marine Sanctuary (MBNMS) (4)  
Rodriguez Seamount (2)

## CTD operations

MBNMS

Santa Barbara Basin



# Cruise Outcome

## The good:

1. Successful SOLARIS validation/calibration trials
2. One successful dive in MBNMS; one in Channel Islands providing exciting coral superoxide data

## The bad:

1. Bad weather inhibited further dives in MBNMS.
2. Difficulty with clearances in Channel Is.; finding alternative sites.
3. Remaining dives at Catalina Island – sparse biological targets to allow for biogenic superoxide measurements

