



LONG-TERM RESEARCH: REDFISH ROCKS

TWO SURVEYS: FROM START TO SYNTHESIS

What does it take to develop rigorous science for a long-term monitoring program? Here are two of the many tools used at Redfish Rocks, Oregon's oldest marine reserve.



HOOK AND LINE

Started 2011



SCUBA SURVEYS

Started 2010

01

SURVEY TOOL

Research tools and test in Oregon waters. Adjust.

02

SURVEY DESIGN

Determine replication & statistical design. Train staff & volunteers.

03

DATA COLLECTION & MANAGEMENT

Data entry, quality control, short term storage solutions. Develop preliminary databases (both biological & spatial data).

04

PRELIMINARY ANALYSES

Preliminary data exploration. Evaluate initial questions. Begin to explore drivers of variation. Interpret results and run new analyses based on preliminary exploration.

05

WRITTEN PRODUCTS

Initial summarization & tailor to overarching goals/mandates. Publication of journal articles or technical reports. Dissemination via multiple channels and audiences, including: website and targeted academic audiences.

06

SURVEY TOOL REFINEMENT

Adjust for technological advances. Plan for, and establish, long-term data collection.

07

SURVEY DESIGN REFINEMENT

Based on preliminary analyses adjust sampling to answer core questions. Adjust statistical design & replicates. Staff training, protocols and recruitment of volunteers.

08

DATA COLLECTION & MANAGEMENT

On-going data collection & database development. Migrate short-term storage to long-term databases. On-going data entry & quality control.

09

DATA ANALYSES

Adjust analyses plan. Write stats code & interpret results. Plan future analyses. Create figures and visuals.

10

SYNTHESIS OF RESULTS

2021: SYNTHESIS