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NWHI Reserve Advisory Council,
1/9/20
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View Videos at https://schmidtocean.org/cruise/necker-ridge-bridge-or-barrier
Schmidt Ocean Institute
https://schmidtsocean.org/cruise/necker-ridge-bridge-or-barrier/

• Schmidt Ocean Institute (SOI) is a non-profit started by Wendy and Eric Schmidt
• Collaborates with scientists worldwide
• Research Vessel (R/V) Falkor
• Remotely Operated Vehicle (ROV) SuBastian
• Mission for advancing oceanographic research and scientific outreach
Length: 257 Feet
Range: 8,000 Nautical Miles
Max Speed: 17 Knots
Staff: 23 Crew, 17 Scientists
Mission Overview

- Three Week Expedition to Mid-Pacific Mountains, Necker Ridge and Papahānaumokuākea MNM

- Objectives:
  - High resolution mapping of seafloor
  - Determine if Necker Ridge is a bridge or barrier to species movement
  - Species and habitat identification
  - Ocean pH measurements

- Methods: Mapping, Video Surveys, Selective Biological Sampling, CTD Measurements, Water Chemistry, DNA analysis, Boron isotope analysis, and Substrate Classification

Temperature: 34 degrees – near freezing

Total Darkness

Pressure: One small African elephant per square inch, 5000 lbs/square inch!
This sponge is 3 feet tall!
History’s Largest Mining Operation Is About to Begin

It’s underwater—and the consequences are unimaginable.

Story by Wil S. Hylton
Glass sponge communities