Antarctic Undersea ROV New Harbor, Antarctica November 13, 2007







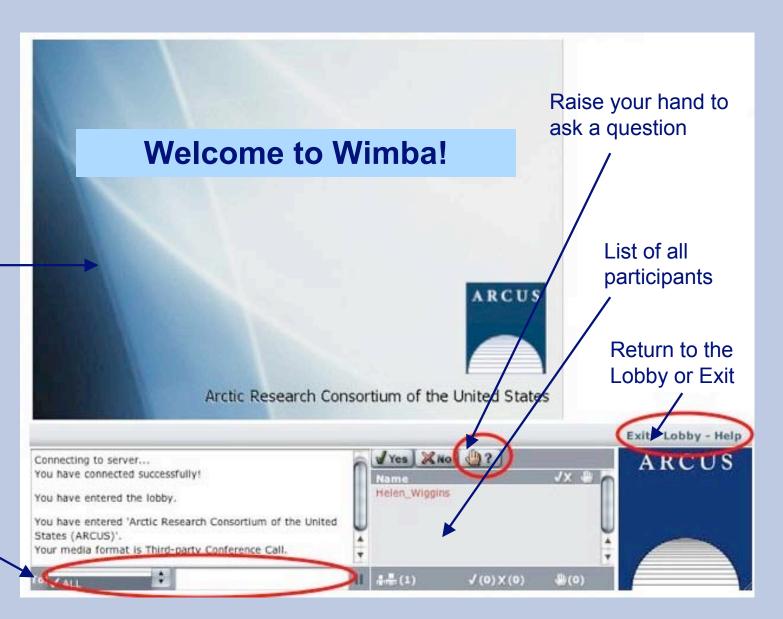






Slides will be shown here







What is PolarTREC?

PolarTREC is a professional development experience in which K-12 teachers are paired with researchers in authentic polar research experiences.

In the next three years 36 teachers from around the United States will join scientists in the Arctic and Antarctic in celebration of the International Polar Year!

www.polartrec.com



#### International Polar Year (IPY) 2007-2009

The International Polar Year (2007-2009) is an exciting scientific campaign focusing on the world's polar regions!

IPY is a time for discovery, science, learning, and awareness about the polar regions with activities for youth, scientists, and the public.

www.ipy.org

### Science Under Ice

Project SCINI in Antarctica

### Overview of Presentation

 Introductions • Dry Valleys, Antarctica • Life at New Harbor • Science at New Harbor Tools: Diving, SCINI, VideoRay Science: Stacy's Ecological Research and the "Lost Experiments" refound! • Questions?

### Team SCINI at New Harbor





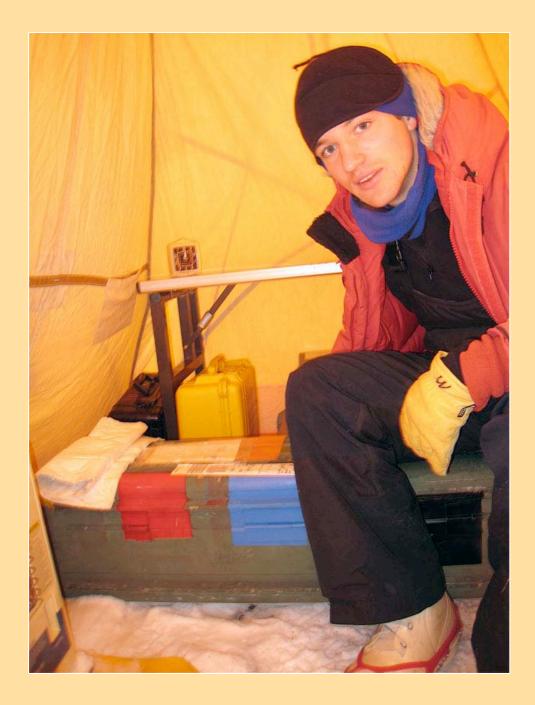
**Stacy Kim** Benthic ecologist Moss Landing Marine Labs, CA 11 deployments to Antarctica

Bob Zook Chief Gizmologist Engineer Diver 14 seasons in Antarctica



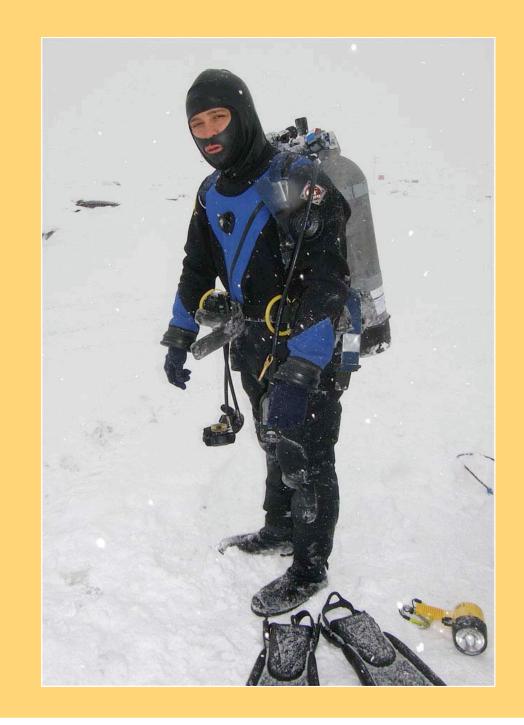
Bryan Newbold MIT Undergrad Physics major Software engineer Joystick master





Nicholas Huerta CSU Monterey Bay undergrad Machinist Diver





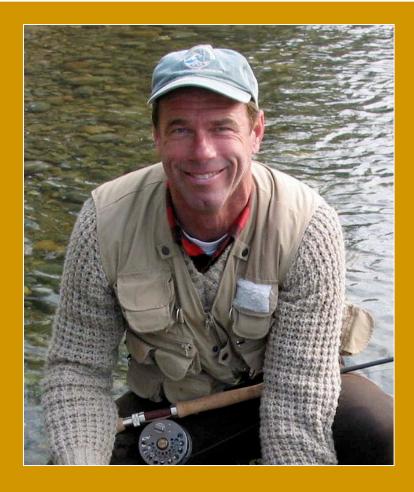


Marcus Kolb VídeoRay owner, desígner, engíneer Díver SuperDad Mindy Bell PolarTREC Teacher Science teacher SCINI helper



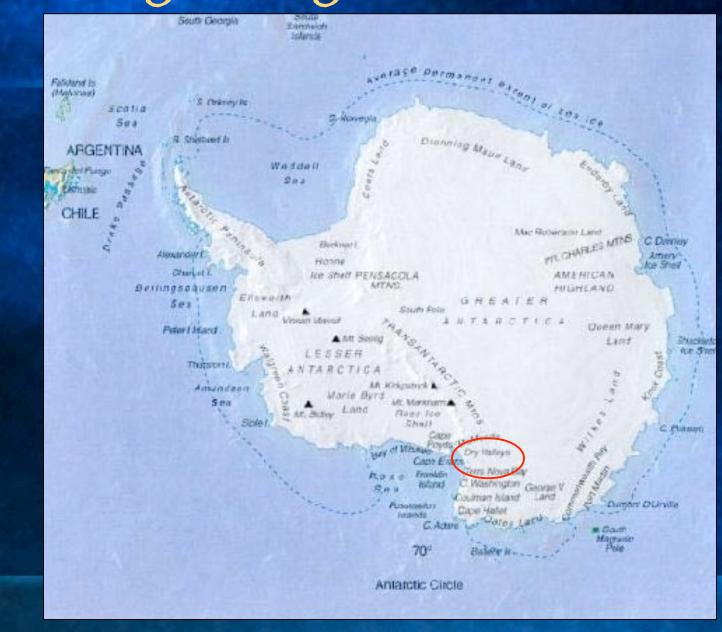
#### **BLee Williams** Submersible Pilot Adopted Canadian





**Rusty Fairey** Marine chemist Moss Landing Marine labs

# Dry Valleys, Antarctica





### SCINI Goals



#### Create seafloor maps

#### Reach below SCUBA depths

### Research questions

What lives here, especially in deeper waters?
New species are still being discovered!
How do humans impact this environment?
How do communities change over time - with and without human impacts?

### Life at New Harbor





# Cooking and Dishes



## Workbench



### Lab and Outhouse





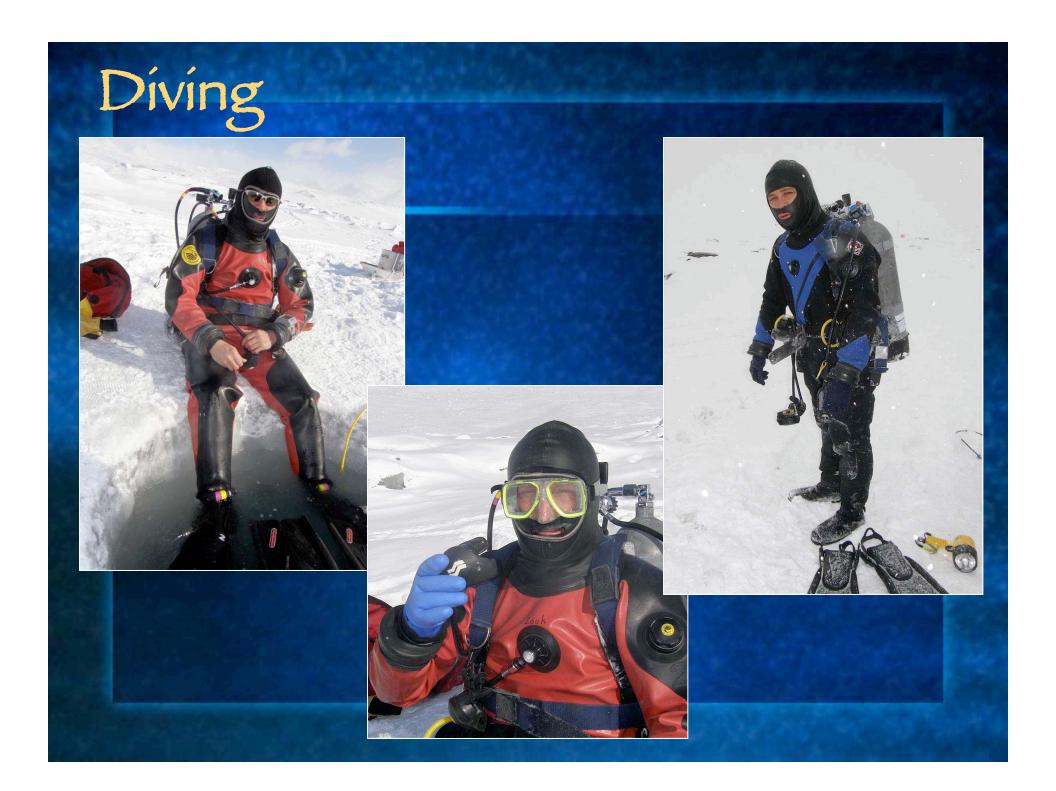


# Making Holes







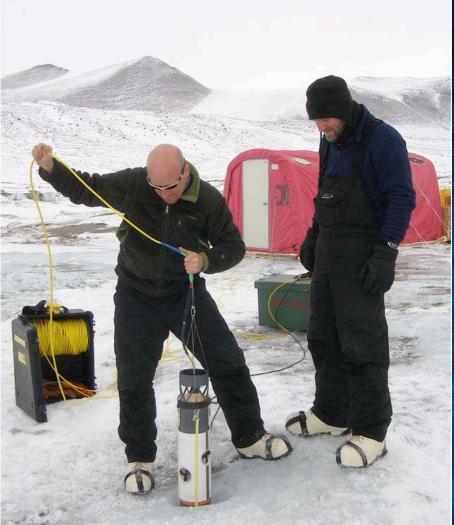






### SCINI





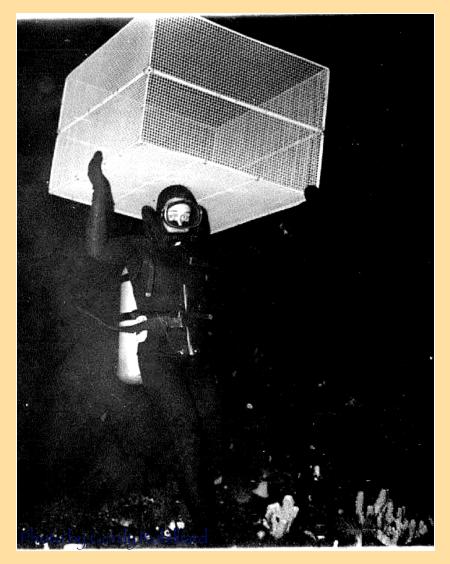
### Scini Submersible Capable of under Ice Navigation & Imaging

#### SCINI Internal Anatomy

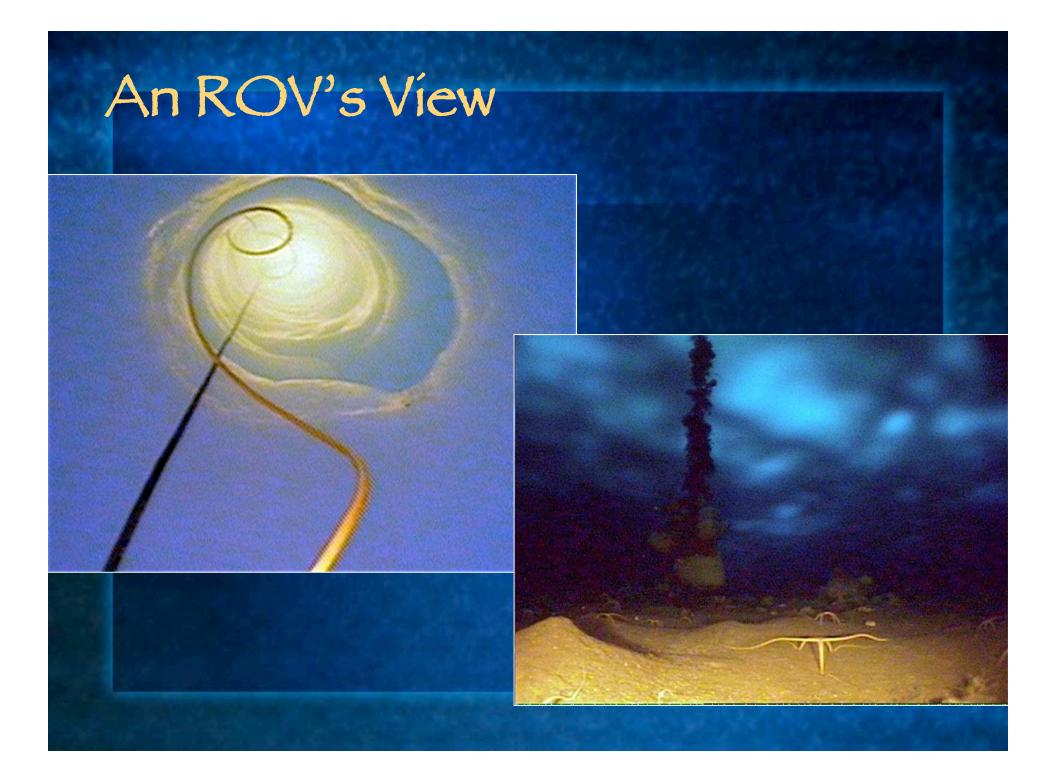
Remotely Operated Vehicle

ROV

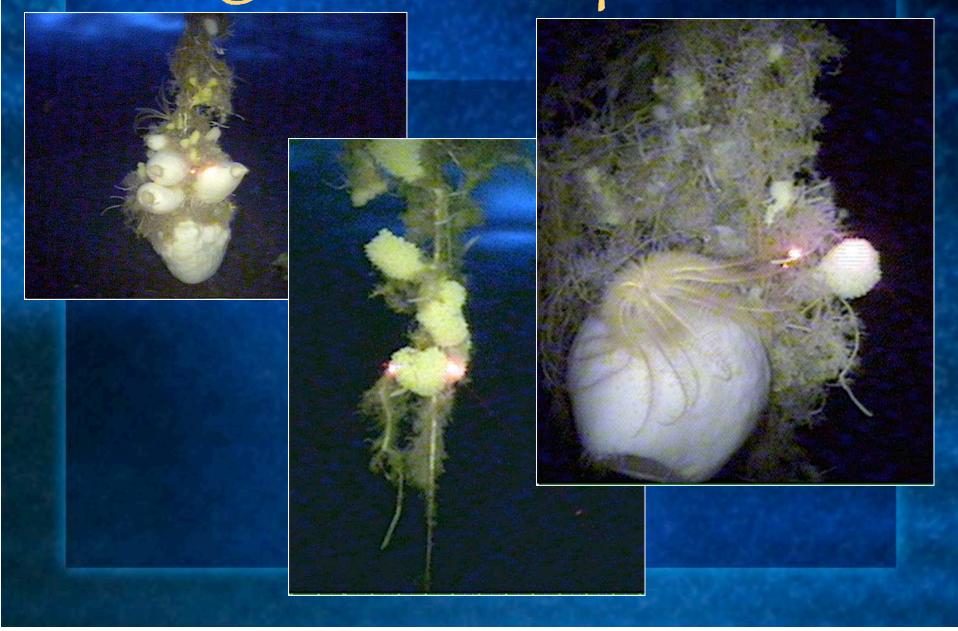
### The Lost Experiments



• Begun in the early 1960s by Dr. Paul Dayton from Scripps. • Experiments located at depths up to 60 m. • Experiments were not completed because diving safety limits of 40 m were later established



# Floating Structures up...



# and down...

# Exclusion Cages closed...



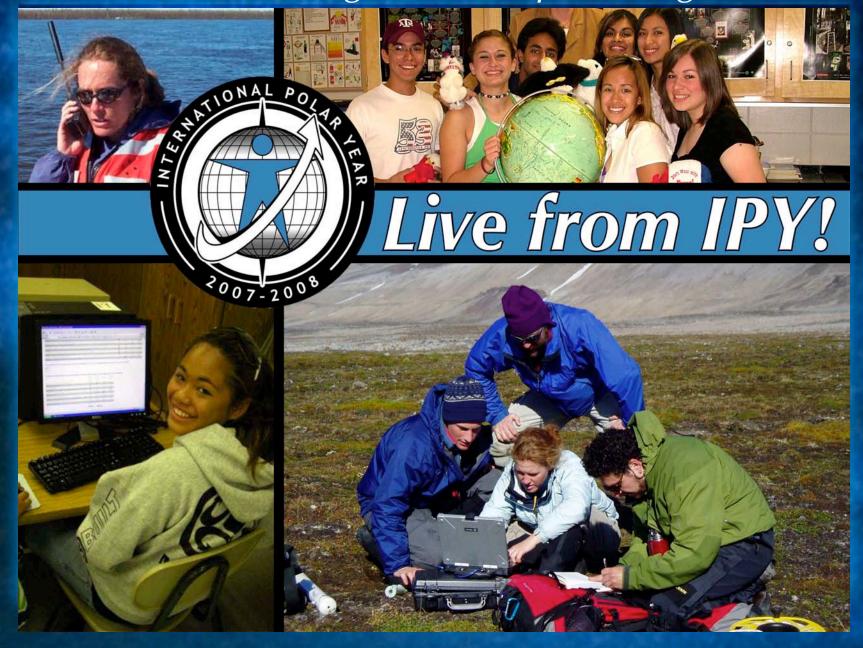
# and open...



### THEEND



#### Check out and register for upcoming events!



### Thank You!

If you have further questions, please contact us at info@polartrec.com or call 1-907-474-1600

WWW.POLARINEC.

