



TEACHERS AND RESEARCHERS  
EXPLORING AND COLLABORATING

# Welcome to *PolarConnect*

with Michelle Brown and the  
Human Impacts in Antarctica  
2011 Expedition

**Friday 9 December 2011**


8:45AM AKST

[9:45am PST, 10:45am MST, 11:45am CST, 12:45pm EST]



Wimba Classroom - Arctic Research Consortium of the United States (ARCUS)

# WELCOME TO WIMBA



ARCTIC RESEARCH CONSORTIUM OF THE UNITED STATES

Exit - Lobby - Help

People (3)

Kristin_Timm			
kristina_creek			
Kristin_Timm			

To: Main Room

Raise your hand to ask a question

List of all participants

Return to the lobby or exit

Slides will be shown here

If using VOIP, press and hold here to talk

Your connection strength

'Chat' with one person or the entire group

**Please note:**

- Participant using the telephone can mute/unmute by pressing \*6 on the phone.
- Today's event will be recorded and archived.



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# Participant Introductions

**When called, please state your:**

- ✓ Name
- ✓ School / Institution
- ✓ The number of students and adults participating with you in the same location



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# What is PolarTREC?

PolarTREC is a professional development experience in which K-12 teachers are paired with researchers for 2-6 week research experiences in the polar regions.

From 2010-2013, nearly 50 teachers from around the United States will join scientists in the Arctic and Antarctica to learn about science, the polar regions, and to share what they have learned with their students and communities.

# Questions

## To Ask a Question:

- ✓ Raise your hand with the “hand button”
- ✓ Type your question in the text chat box
- ✓ Speak loud and clear and directly into the phone to ask your question.



# Environmental Monitoring at McMurdo Station



# Where am I?

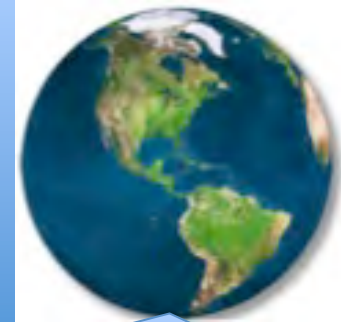
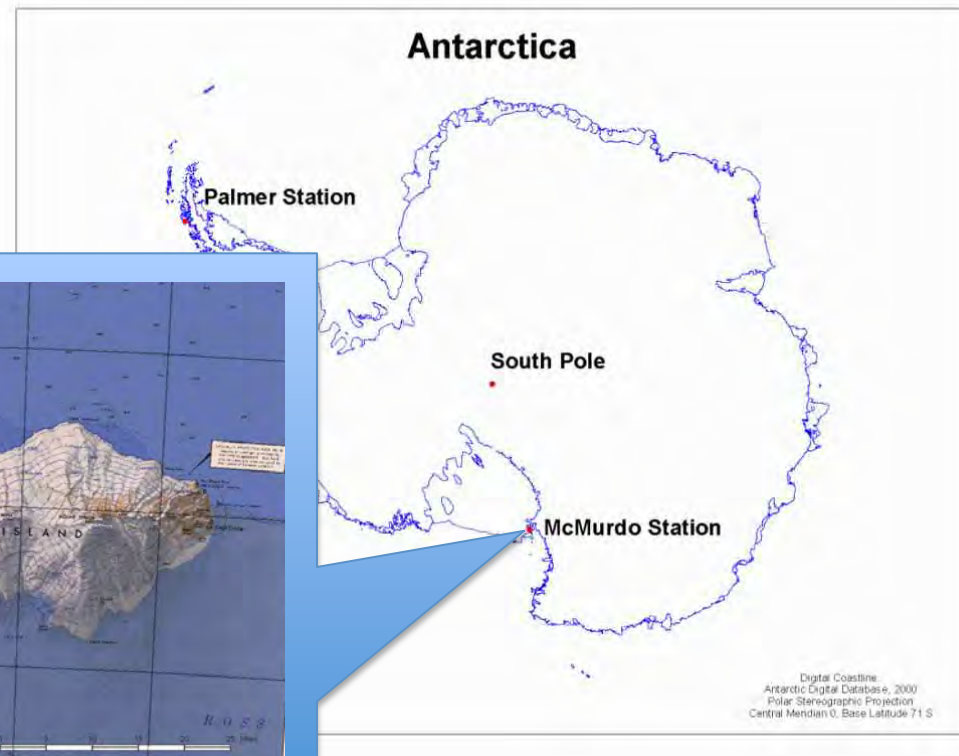
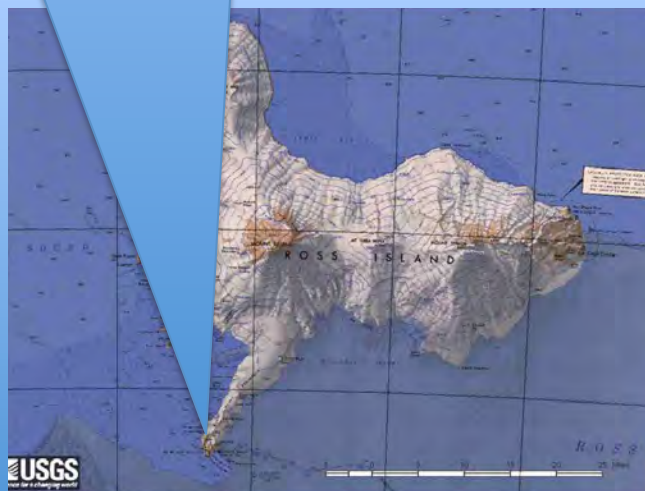


Photo courtesy of A.Klein



Digital Coastline  
Antarctic Digital Database, 2000  
Polar Stereographic Projection  
Central Meridian 0, Base Latitude 71 S

Map courtesy of Antarctica Digital Database



Map courtesy of  
USGS





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# Traveling to McMurdo







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# Life at McMurdo Station



# Recycling at McMurdo Station





# Our Research Team



Steve Sweet



Andrew Klein



Michelle Brown



Terry Palmer



Joni Kincaid



# Research Purpose

- 1991: Antarctic Treaty calls for Environmental Monitoring



Photo courtesy of USAP

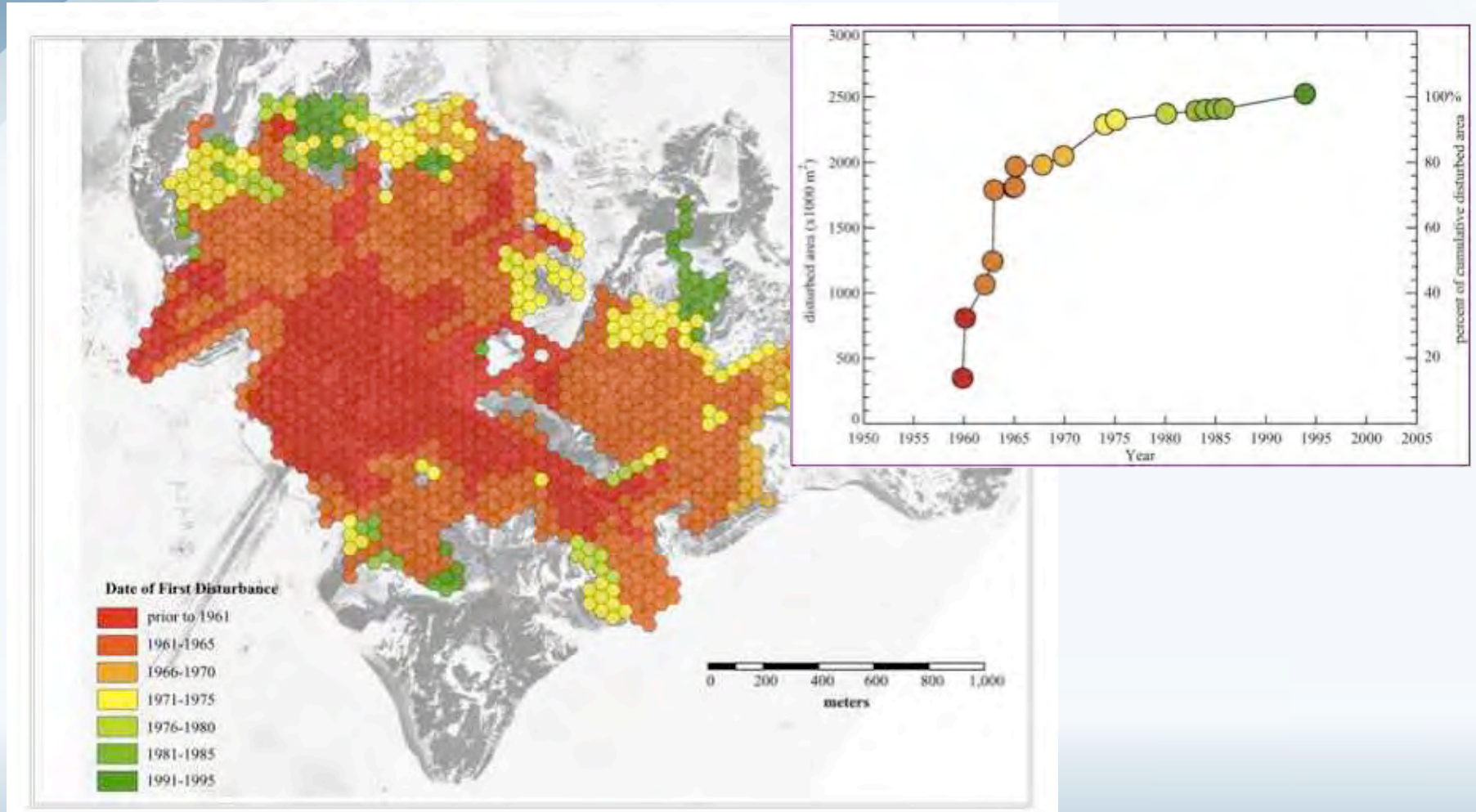
McMurdo Station, 1955/56



Photo courtesy of A.Klein

McMurdo Station, 2005

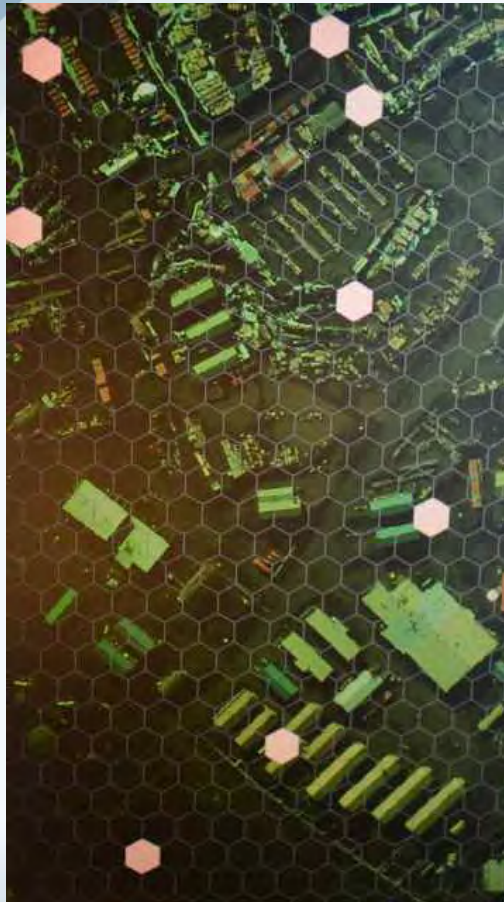
# Collecting Samples on Land



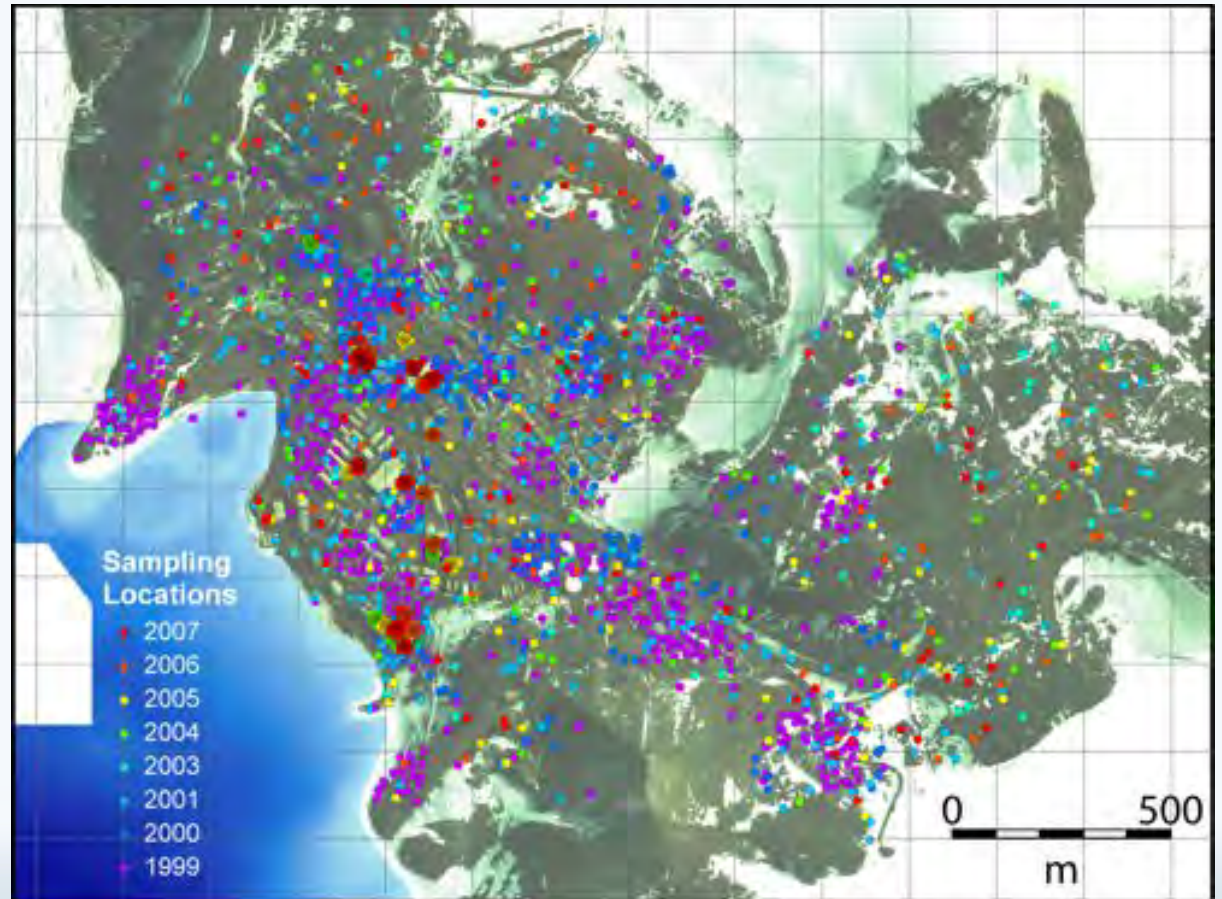
Map courtesy of A. Klein



# Collecting Samples on Land



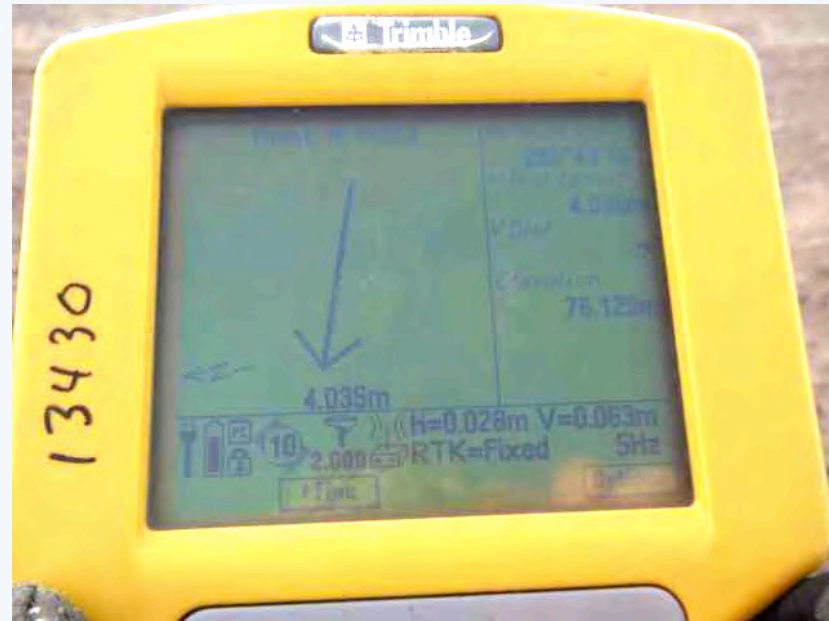
Map courtesy of A. Klein



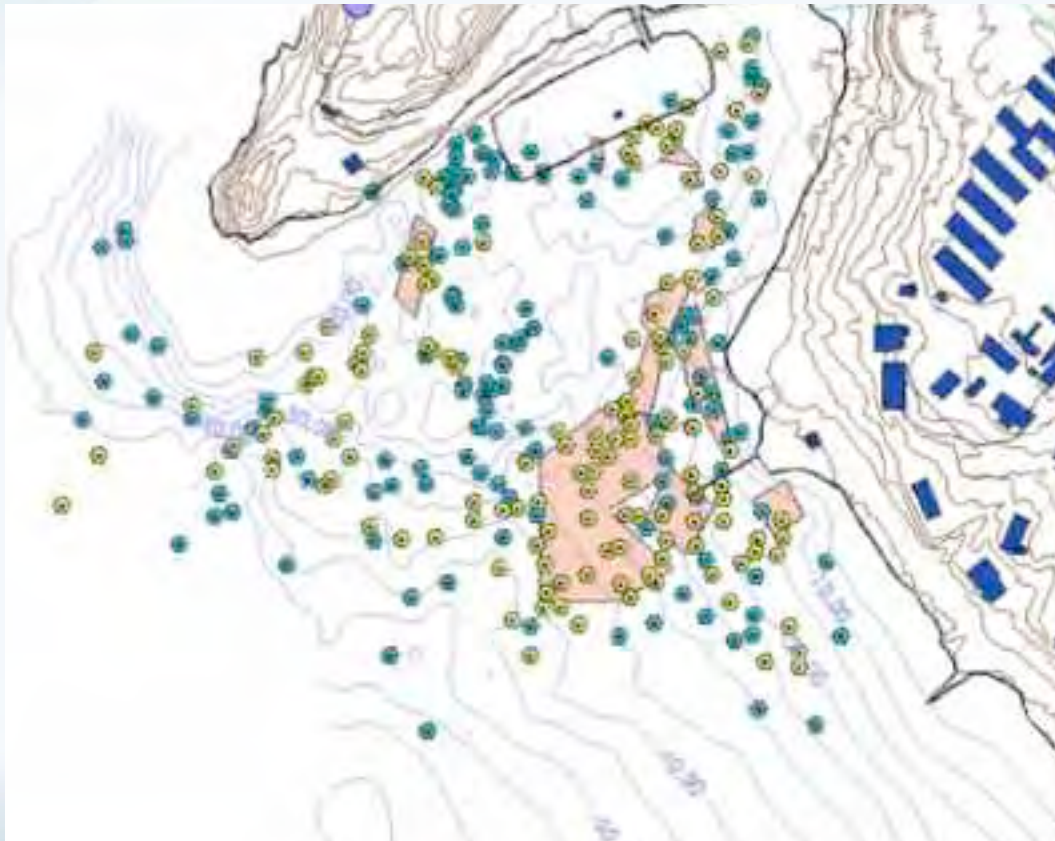
Map courtesy of A. Klein



# Collecting Samples on Land



# Collecting Samples on the Seafloor



Map courtesy of A. Klein



Photo courtesy of R. Robbins

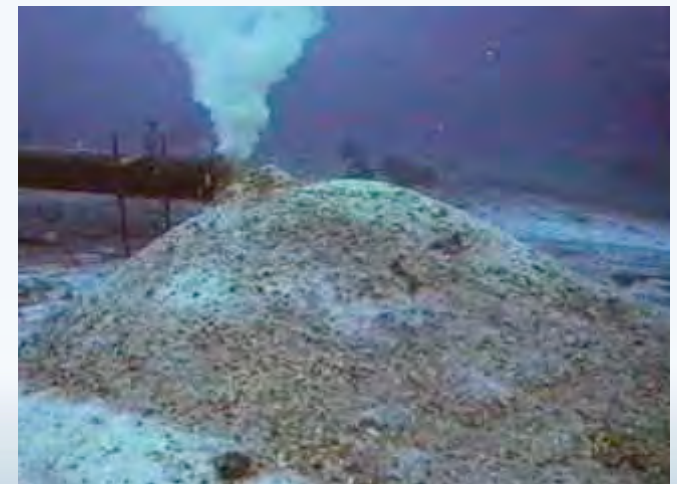


Photo courtesy of R. Robbins



# Collecting Samples on the Seafloor

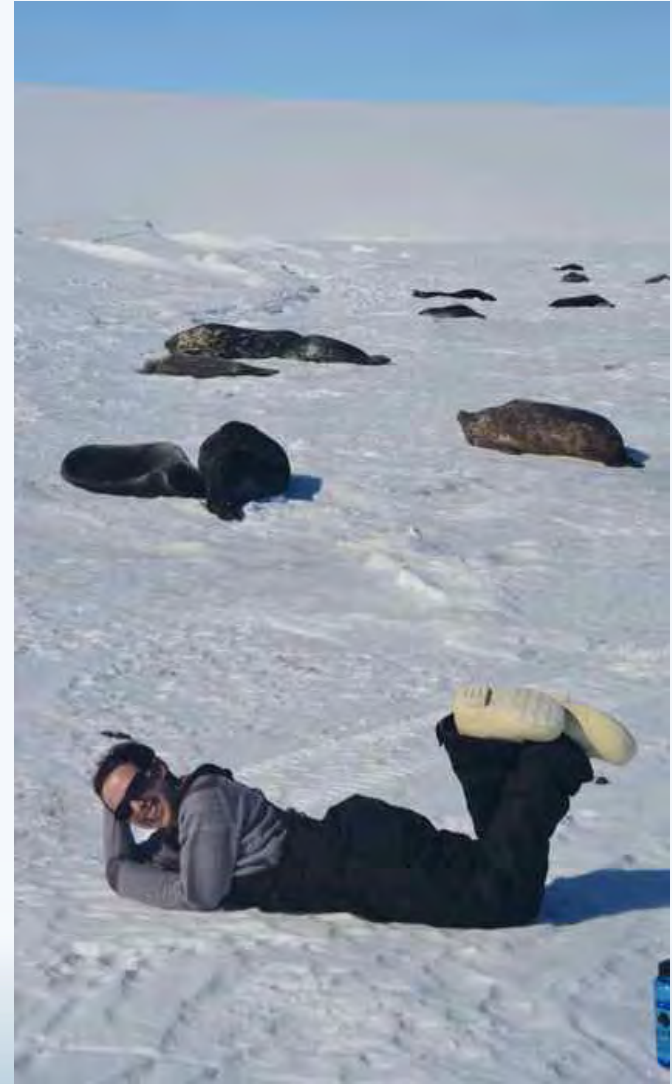




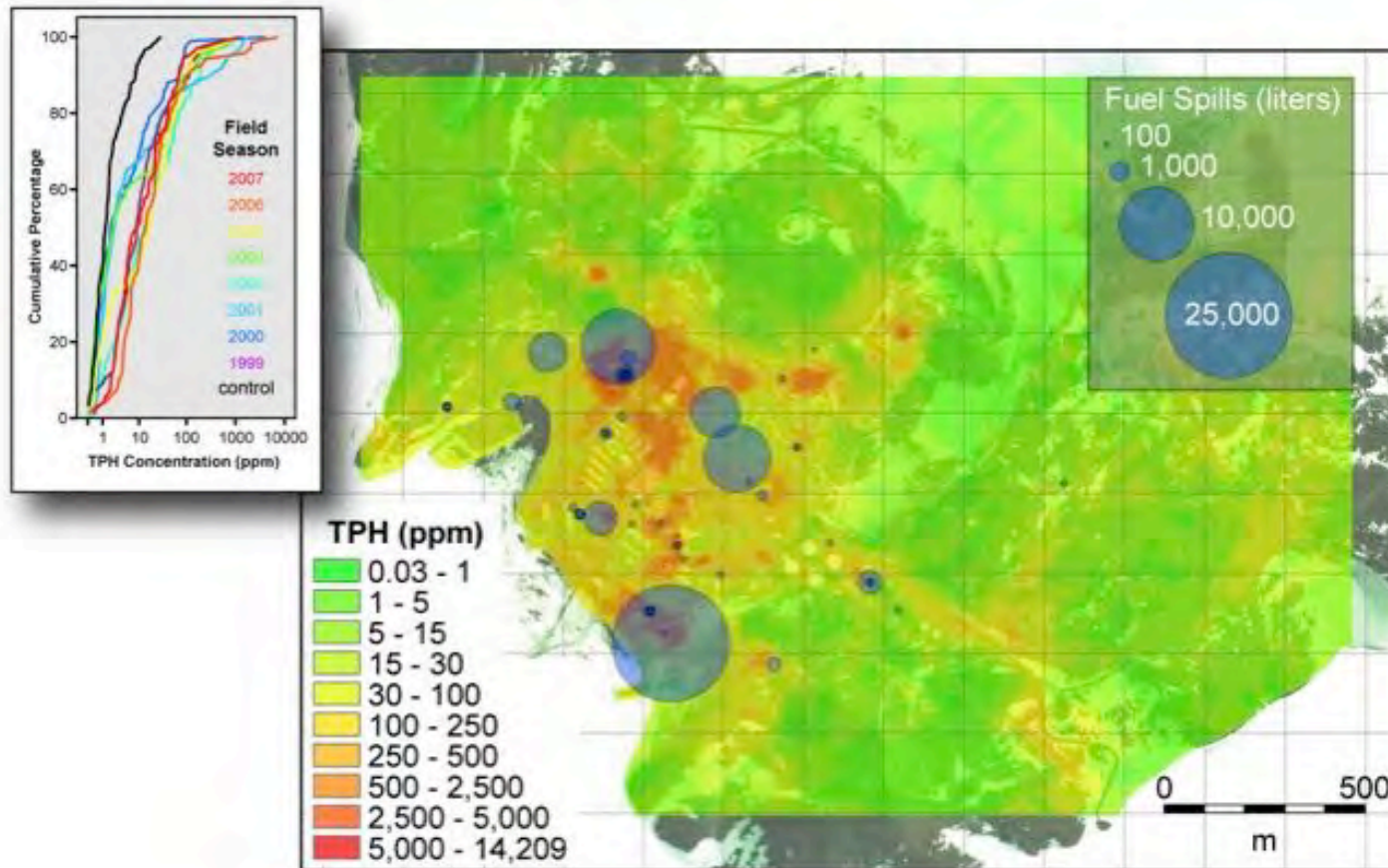


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# Control Site: Turtle Rock



# Results of Research



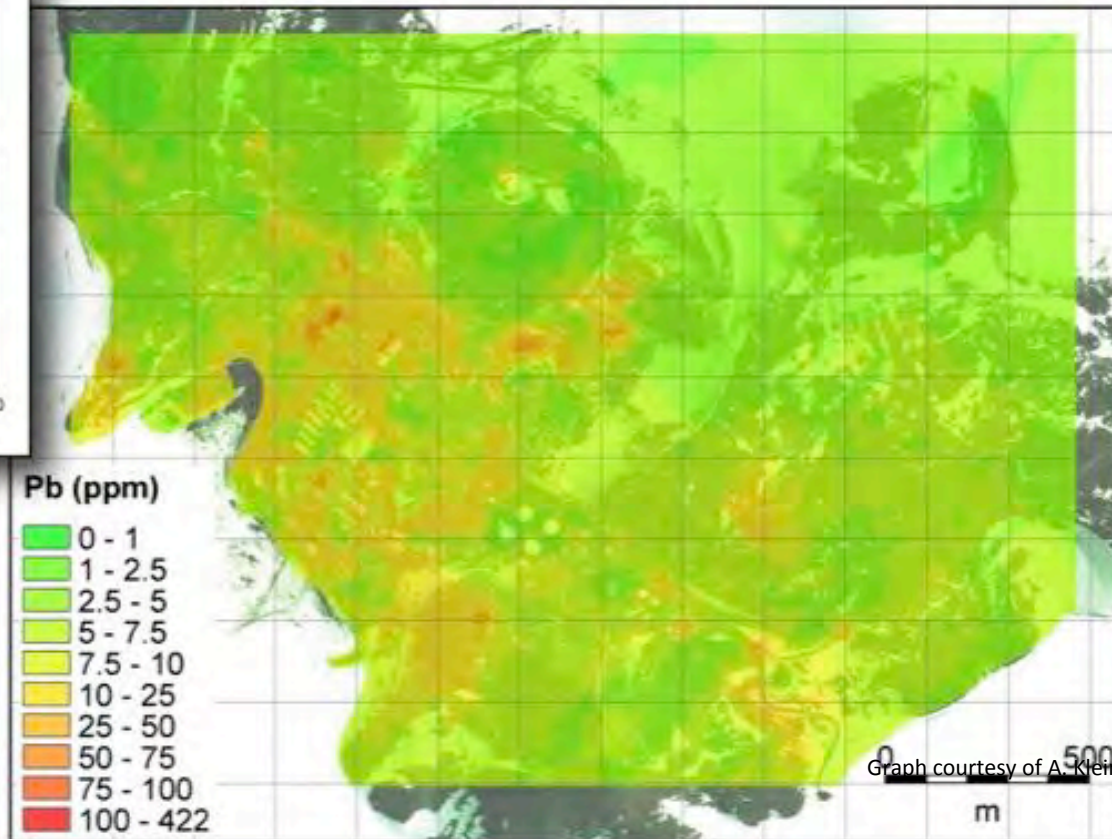
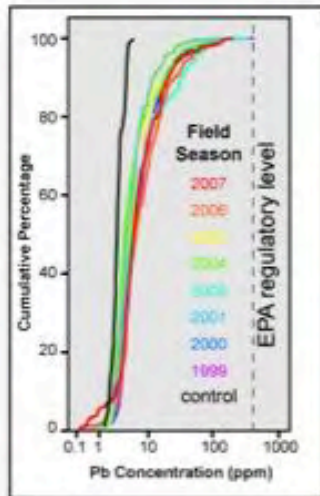
Graph courtesy of A. Klein

- Hydrocarbons found in fuel samples at expected locations.
- Although there are high concentrations, they are not increasing with each year.



# Results of Research

- Similar with lead (Pb).
- Higher amounts in predicted areas, but levels are not increasing.



Graph courtesy of A. Klein



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# Questions?





# Animals of Antarctica





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# Teachers: Join PolarTREC!

[www.polartrec.com/about/join](http://www.polartrec.com/about/join)

Every teacher can participate in different ways:

- **Following Expeditions**
- **Participate in PolarConnect Events**
- **Join the Polar Education Email List**
- **Take Online Professional Development Courses**
- **Become a PolarTREC Teacher!**





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# Upcoming Events

Watch for and register for upcoming events at [www.polartrec.com!](http://www.polartrec.com)



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# Thank You!

*An archive of the event will be available shortly.*  
<http://www.polar-trec.com/polar-connect/archive>

