



Live from IPY!

With Deanna Wheeler

*on the USCGC Healy in
the Bering Sea*



30 March 2009

www.polarrec.com



Welcome to HorizonWimba



Arctic Research Consortium of the United States

List of all participants

Raise your hand to ask a question

Return to the lobby or exit

Slides will be shown here

If using VOIP, press here to talk

'Chat' with one person or the entire group

The screenshot shows a Wimba webinar interface. At the top, a slide reads "Welcome to HorizonWimba" with the ARCUS logo and "Arctic Research Consortium of the United States" below it. A toolbar contains a "TALK" button, microphone, video, and other icons. A chat window at the bottom left shows a conversation. On the right, a "People (3)" list shows participants: Janet_Warburton, ronnie, and tina. At the bottom right, a navigation bar includes "Exit - Lobby - Help" options. Red circles highlight the "TALK" button, the chat window, the "People" list, and the "Exit - Lobby - Help" options. Arrows point from text labels to these elements.

Please note: Today's event will be recorded and archived at www.polartrec.com.



Roll Call

- **When called, please state your:**
 - Name
 - School / Classroom
 - The number of students participating from your classroom today



International Polar Year (IPY)

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



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 over 40 teachers from around the United States will join scientists in the Arctic and Antarctica in celebration of the International Polar Year!

www.polartrec.com

**POLAR
TREC** *The PolarTREC Team*



Janet Warburton
PolarTREC
Project Manager



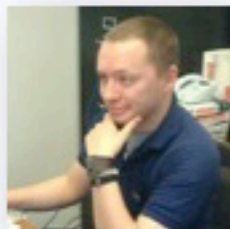
Kristin Timm
PolarTREC
Project Manager



Ronnie Owens
Web Developer



Helen Wiggins
Program Coordinator



Zeb Polly
Systems Administrator



Joed Polly
Video Production

...with help from the
entire staff at ARCUS





Live from the Bering Sea to

J. C. Parks Elementary

Charles County, Maryland





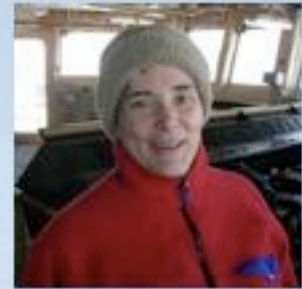


Chief Scientist



Dr. Lee Cooper

PolarTREC Teacher



Deanna Wheeler



Ice Man



Dr. Rolf Gradinger

Walrus Wizard



Dr. Chad Jay

Benthic Brain



Dr. Nathalie Morata



Northern
Bering Sea

JC Parks
Elementary



Russia

Chukchi Sea

Bering Strait

Alaska
(USA)

St. Lawrence Island

St. Matthew Island

Nunivak Island

• Anchorage

Bering Sea

Kodiak Island

Gulf of Alaska

• Dutch Harbor

Aleutian Islands

Pacific Ocean

6

Map courtesy of
Wikipedia Commons



Satellite image of ice cover



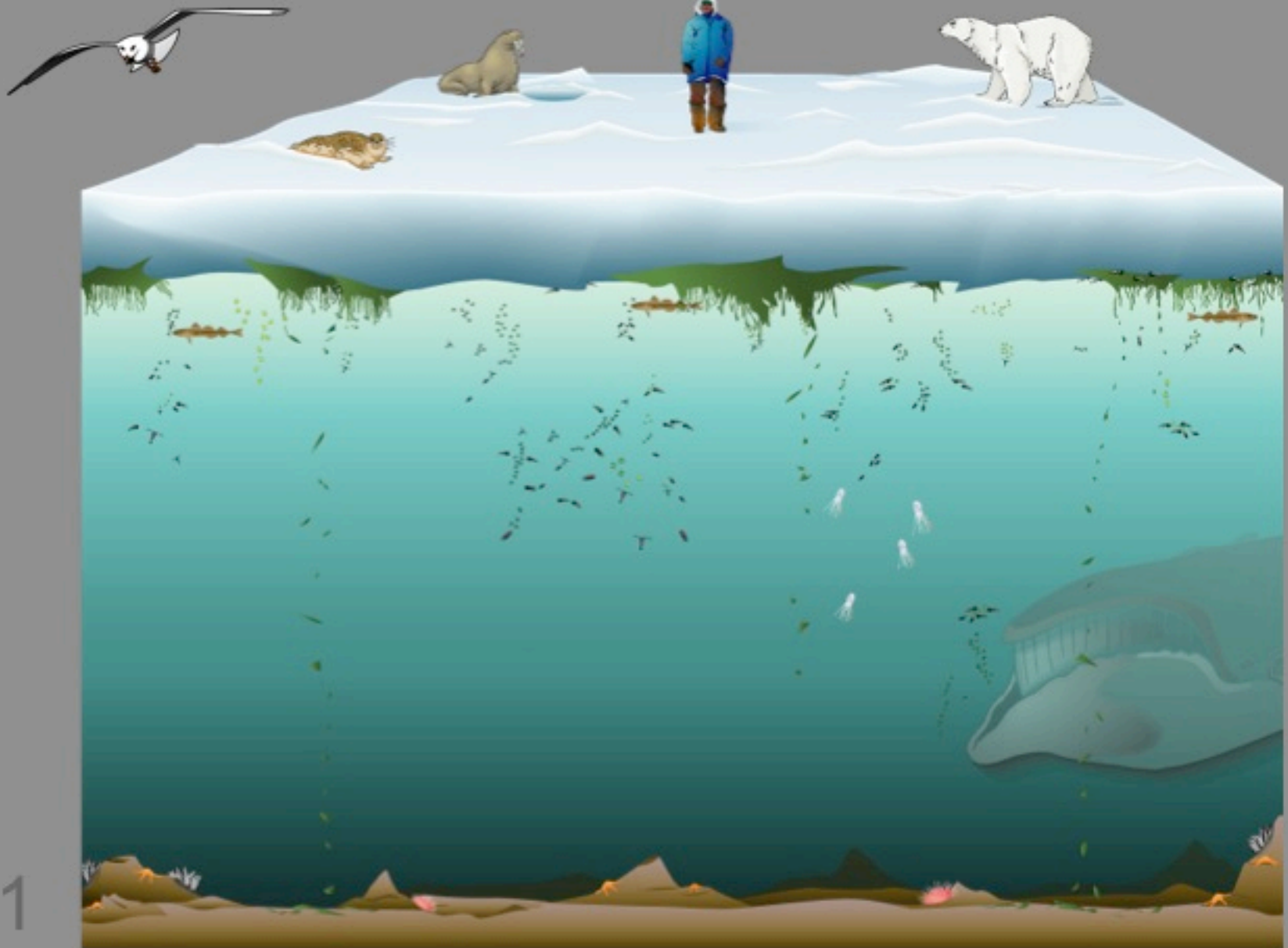
Satellite image of ice cover



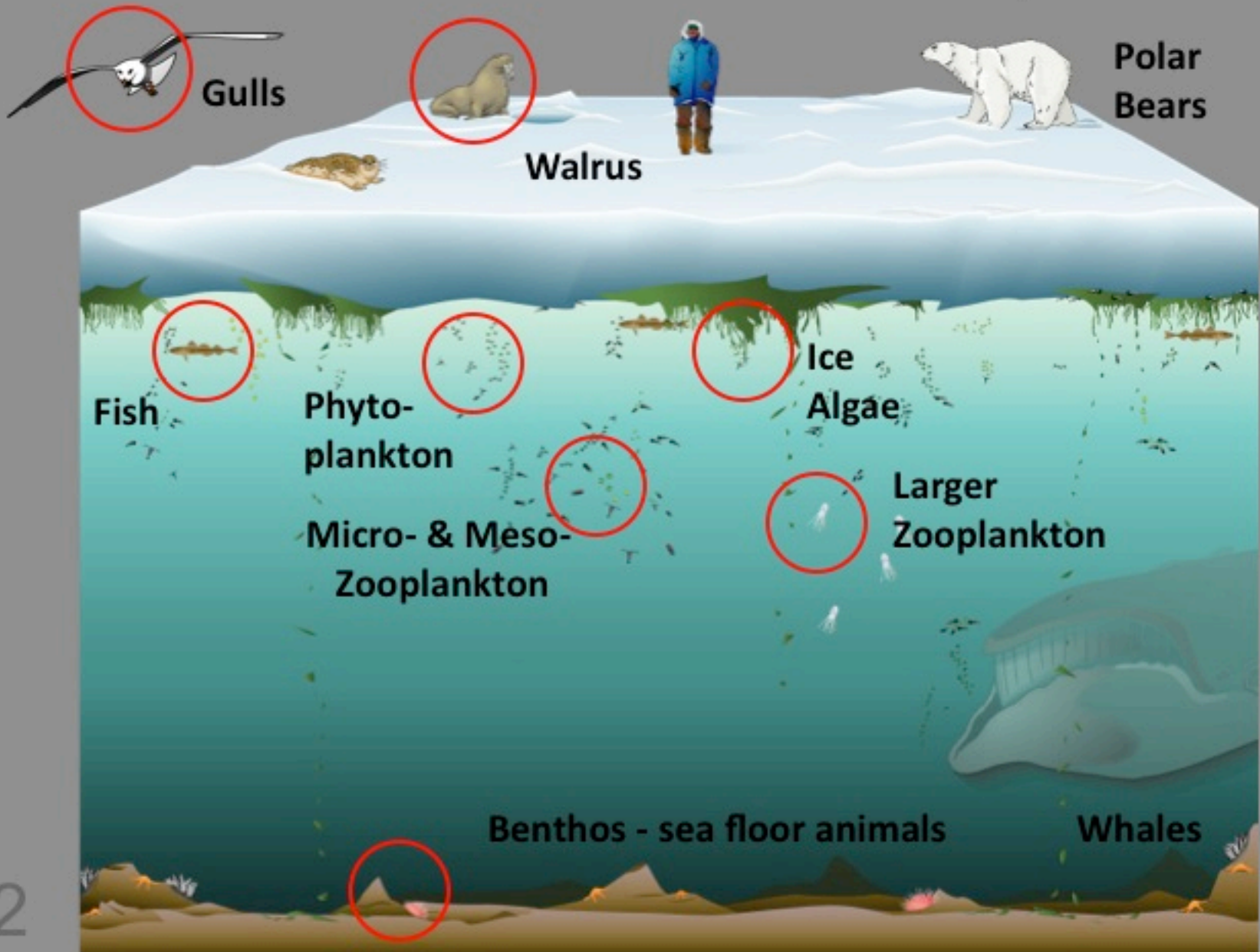
Research Questions

- How does ice enable species to live in the Bering Sea?
- How will global warming affect the ice and the species that live here?

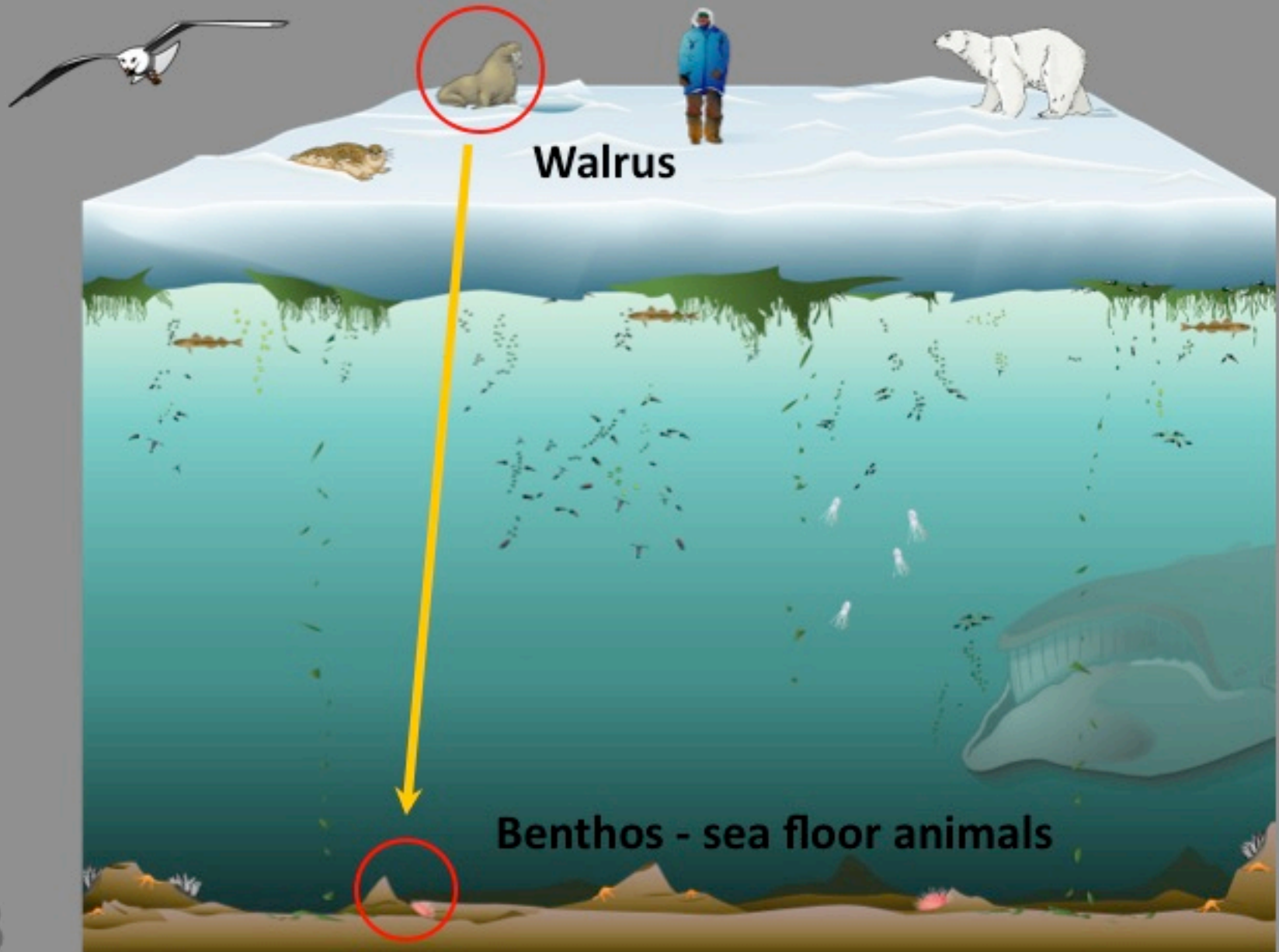
Connections in the ecosystem



Connections in the ecosystem



Walrus & Benthic Species



Pacific Walrus



- Where do they feed?
- What are they eating?
- How will they survive without ice?

Use a helicopter to find
and land near walrus



...or walk if within 2 km



Use a crossbow to attach
satellite tracking tag

Will record location and time in water for
2-3 months until the tags fall off



Let's get muddy!



Taking mud cores
from the bottom





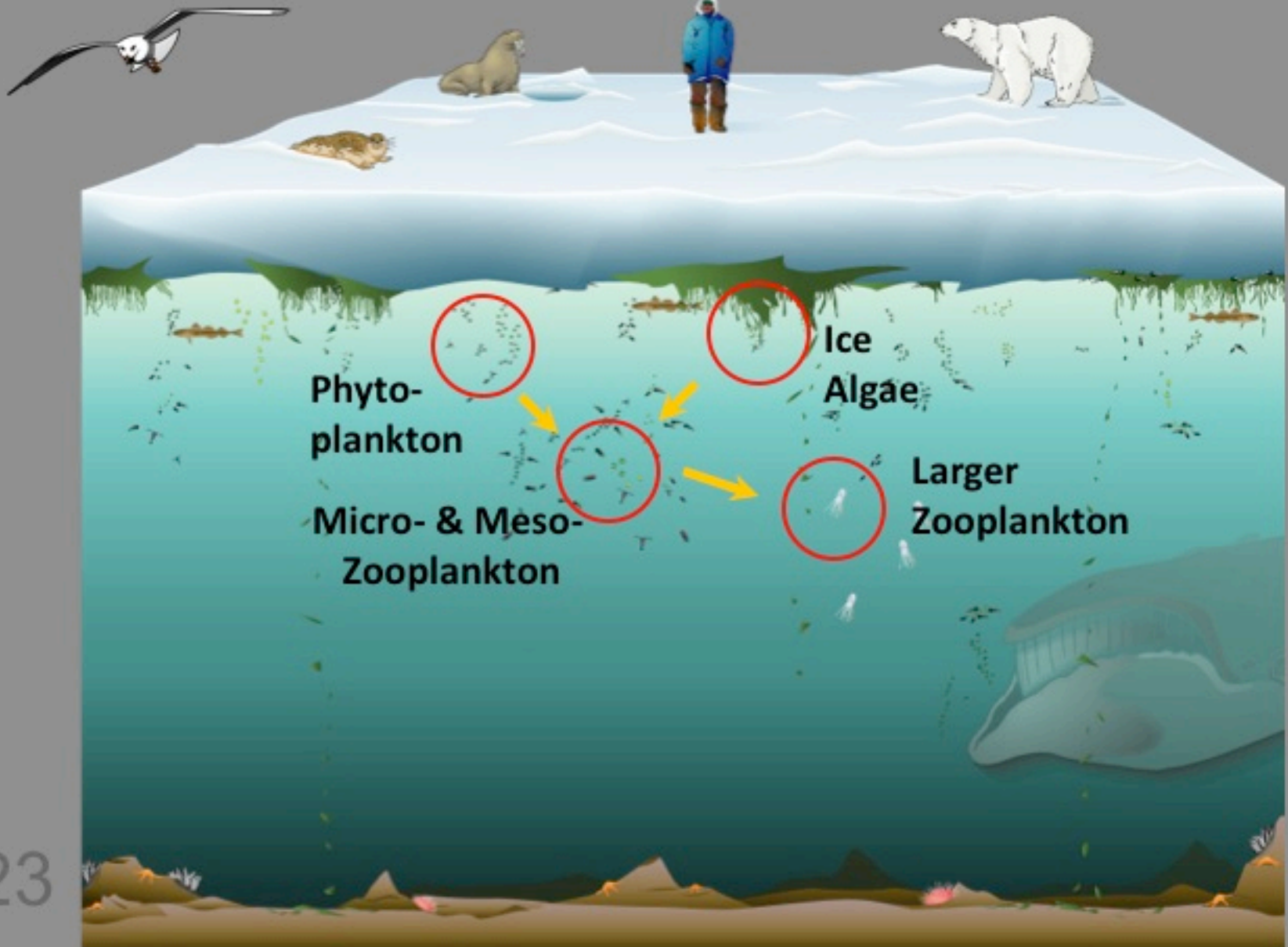
20

Sediment Sample





Plankton & Algae



Sampling Ice



-30°C

We take an
ice core with
an electric
drill




First Year Ice — 40-80 cm Thick

25

Sectioning the ice core

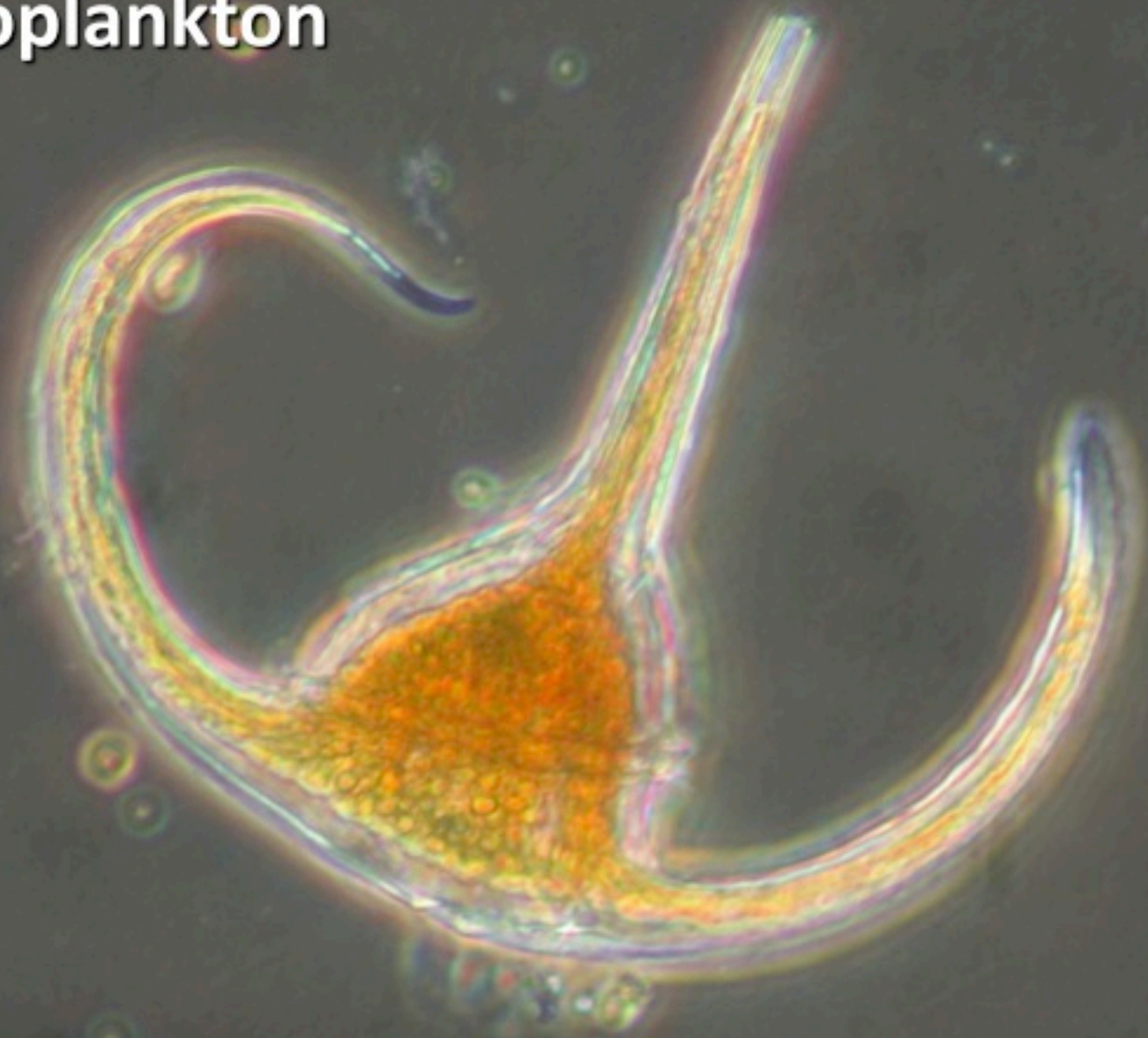




overturned
ice

>450 Species live in or on the ice

Phytoplankton



28

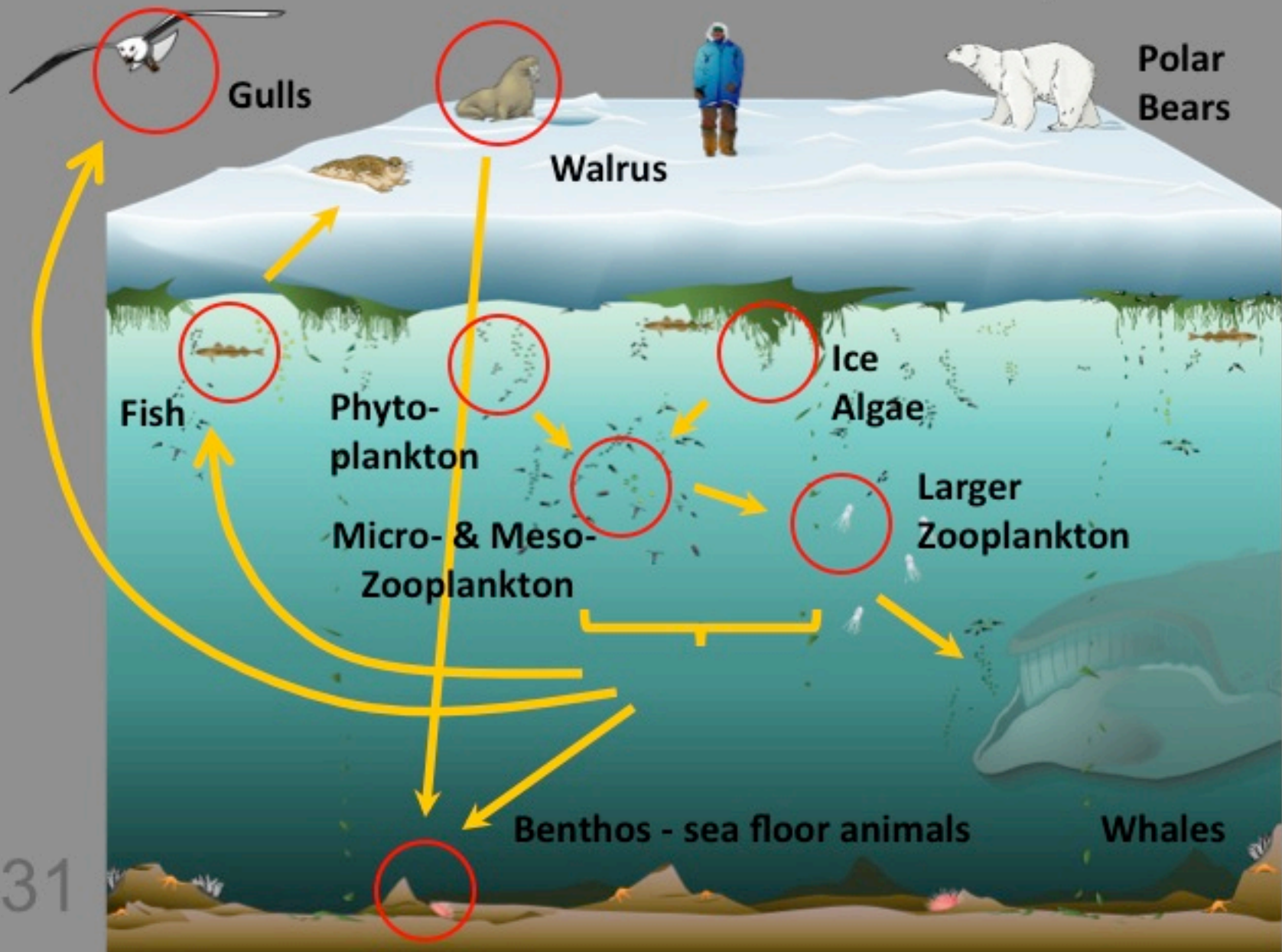
Zooplankton





30 Ice Productivity > Water Productivity

Connections in the ecosystem



USCGC Healy

- 85 crew
- 40 scientists
- 21 days



32



Questions?

When asking a question, speak slow, loud, and clear and say your:

- Name
- Question





Register for Upcoming Live Events at :
[www.polartrec.com!](http://www.polartrec.com)



Thank You!

*The archive of this event will be available shortly at:
www.polartrec.com!*

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

