The Arctic is warming, and the sea ice is thinner than anytime in decades. The spell trouble for walruses, which depend on other species — including humans — that depend on the North to sustain them.

An international team of researchers, including some from Maryland, spent much of March aboard a Coast Guard icebreaker gathering sea ice data in the Bering Sea, gathering evidence that might help explain what’s happening there. Endur- ing force winds and temperatures that dipped to minus 10 degrees Fahrenheit at times, they sampled the ice off the coast of Alaska, scooped up clams and other creatures from the sea bottom and scanned by helicopters across the vast white landscapes to find and tag walruses.

In some ways, it’s like a three-ring circus,” said Lee Cooper, chief scientist for the cruise and a research professor at the University of Maryland’s Center for Environmental Science. “With nearly three dozen researchers from the United States, Canada and elsewhere, the icebreaker was a hub of activity un- der the howling wind.

The three-week cruise was part of a six-year, $52 million study of the changing cli- mate’s impact on a region whose importance stretches far beyond its shores. Besides offer- ing early signs of an ecological upheaval that could sweep across a warming planet, the Ber- ing Sea supplies half of the seafood eaten in the United States.

“Changes here affect the entire country, and seafood markets abroad,” said Francis Wiese, senior scientist for the North Pacific Research Board in Anchorage, which is coor- dinating the study in partnership with the National Science Foundation. Those changes also threaten the way of life and possibly the existence of remote native communities such as the Yupik people there who have traditionally sub- stained themselves on hunting, walruses and other prey across the frozen sea.

Almost a decade ago, scientists warned that the ice covering much of the Bering Sea in winter was melting earlier and later than be- fore. Weak or vanishing ice means the long- expected Pacific walruses that congregate in shallow waters off Alaska’s coast have fewer spots to haul out of the frigid water. The mammals feed mainly on clams, worms and other tiny creatures on the bot- tom of the sea, using their sensitive whiskers to locate prey amid the sand and mud. The ice pro- vides the animals a floating platform on which to rest between feeding dives. The re- makes their body heat.

As the ice begins to melt in April, the wal- ruses begin moving north, passing through the Bering Strait to the Chukchi Sea by sum- mer. The Chukchi sea ice also is melting more in summer, and scientists have noticed “some very dramatic responses” there, said Chad Jury, a scientist with the U.S. Geological Sur- vey’s Alaska Science Center in Anchorage. “There is some evidence that the ice is thinner and the ice is breaking up earlier and earlier.”

“Some of the local communities have expressed concern about the long-term effects of climate change on the sea ice, and that seems legitimate to me,” said Moira Louis, a researcher with the Alaska Center for Energy and Power in Anchorage. “But we might be seeing some more subtle changes in the Bering as well,” she said. “I think I’ve come up with the ultimate ear- marks: ‘BioAgroEco Infrastructure Improvements to 911 Communications, the bases beloved by that genre: ‘I’m just a little country girl from Fayetteville, Arkansas, living in a small town in a small state, raising kids."

Thanks to the new transparency that Con- gress is now supposed to be operating under when it comes to the hot topic of earmarks, House members had to make public which projects they want funded in the 2010 budget. (Senators have a later deadline to do the same.)

“Earmarks, of course, became a campaign- ness over the last two decades, and now the president said he was going to cut them. The overall goal was to speed up the process of getting projects funded by highlighting a project that seems trivial — some of the great advances in science, medicine and technology. Still, earmarks remain the potato chip of politicians. They may be bad for you — some opponent is likely to find a risk or conflict of interest that makes the idea unappealing — but they’re ultimately irresistible.

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Behind the blooms

There's lots to do to prepare the Ladew Gardens for the public

BRENT JONES

When did you know that gardening was more of a hobby than a job, something you wanted to do for the rest of your life?

I bought a house and realized that everything else you choose had more thought going into it than mine. So you see that one has an interest and passion in gardening. When it's a permanent place and something that you're going to be in for a while, it's a lot more flexible. So I work around the house and we have the reveal. There really is an obsession to this thing. Gardeners are obsessive people, but in a good way.

How did you arrive at Ladew?

It was an acquisitions and development job. I was independent work and fundraising. I came on the board about 15 years ago and have been here since.

Describe the final preparations to get the grounds ready for the spring opening.

The roses, which we like to have the last minute because we don't like for them to throw off new shoots when cold weather is still imminent, they were all pruned. The ponds were pruned and all filled. The last fish will come out of dormancy when the temperature reaches 50. We're keeping any on you lot, but not starting to find them quite yet. We've cleaned up the beds, taking out any of the material that didn't hold in the muck. We have hardened new yet because it has been chilly.

Is the staff energized by the opening?

It's been great, it's a great time. We have planted so many else have had a long, beige winter, and now it's a bright, big spring. We're greening up here. We are getting really ready to show Ladew's place. Are the bulbs on schedule?

We had two bulbs that are two bulb are two bulb early. Really warm springs, everything is holding off a little bit, which means that it goes, it's going to be a fantastic show. Every time it gets warmer, we get closer to blooming.

It's been dry for, with rainfall levels less than normal. Has that affected the grounds?

Yes, but because it's been so cold, a lot of things are pushing. The flowers are really warm and very life. And plants were really growing. A lot of new growth and didn't have much moisture. That's when we're going to start seeing possible bloom. But for this time, it's a perfectly long, cool spring, which we really enjoy here.

Icebreaker becomes hive of scientific activity

Still other researchers camouflaged the open waters around St. Lawrence island with fleets of paddle-wheelers, large deck boats that win- ter in the eastern Bering Sea. Their numbers have plummeted since the 1970s, and they're listed as threatened.

Researchers aren't sure how many Pacific walruses have plummeted since the 1970s, and they're listed as threatened. Still other researchers canvassed the open seas. A 1990 aerial survey estimated 200,000, but a 1995 aerial survey estimated 100,000. But very likely, because the animals spend most of their time in the wa-

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