



Get your news on the go  
baltimoresun.com

• HOME

• MARYLAND

• NATION/WORLD

• BUSINESS

• SPORTS

• ARTS/LIFE

• OPINION

Search:

Site Web enhanced by Google

MARKETPLACE JOBS CARS REAL ESTATE SHOPPING

advertisement



## maryland news

# Vital bay grass can't take heat

Experts say the Chesapeake's plant life couldn't stand another summer of temperatures near record highs

By Tom Pelton

Sun reporter

Originally published May 13, 2006

**CRISFIELD** // From the deck of a motorboat, Mike Naylor plunged a rake into shallow water and came up with nothing but a sliver of dead seaweed the size and color of a burnt match.

A year earlier, a lush forest of green eelgrass swayed beneath the waves of Tangier Sound here in the southern **Chesapeake Bay**. The plants were a vibrant breeding ground for blue crabs, terrapin, sea horses and pipefish, said Naylor, a biologist with the **Maryland Department of Natural Resources**.

But now as Naylor hunted from cove to cove with his rake, he found much of the underwater vegetation dead or gone. "The record heat last summer just cooked the eelgrass," he said, eyeing the desiccated stem drooping between the tines of his rake.

Some scientists believe global warming contributed to a widespread die-off of eelgrass last summer in a section of the **Chesapeake Bay** that is the core of the region's crab industry.

Eelgrass - a lime-green plant with delicate, spaghetti-like leaves - is the dominant aquatic plant in the salty southern bay closest to the Atlantic Ocean. The species is the only underwater plant that lives year-round in the bay, and it is viewed by biologists as a crucial producer of oxygen and shelter for marine life. An aerial survey this spring of Tangier Sound in the lower Chesapeake, as well as Chincoteague and Isle of Wight bays along the Atlantic coast, showed a widespread loss of eelgrass, Naylor said.

Talk about it

E-mail it

Print it

Contact us

XML RSS feed

### Photos



Eelgrass under threat

(Sun photo by Kenneth K. Lam)

May 10, 2006



Mike Naylor, Mark Lewandowski

Some eelgrass survives in Tangier Sound, and Naylor was pleased to find that some of the plants sent out flowering shoots.

But he and other researchers worry that any comeback would be squelched by another year of record-breaking heat, which could turn large expanses of the southern bay into desert-like zones devoid of plants.

"If we have another hot summer like last summer, the change in the **Chesapeake Bay** could be catastrophic," said Robert J. Orth, a professor at the Virginia Institute of Marine Science. "We are quite concerned that evidence continues to stack up that global warming is having rapid impacts in many areas of the world for animal and plant species, including the eelgrass here."

More than 2,000 scientists from 100 countries, participating in the Intergovernmental Panel on Climate Change, concluded in 1995 and 2001 that global warming is happening, and that carbon dioxide produced by human industry is largely to blame.

Last year was the hottest or second-hottest year on record, depending on which scientist you ask, said Gerald A. Meehl, senior scientist with the National Center for Atmospheric Research. Moreover, there's a clear upward trend - with nine of the 10 warmest years in documented history in the last decade, Meehl said.

Water temperatures in the **Chesapeake Bay** also broke records last summer. From June to September, the bay's main section averaged 80 degrees, three degrees above normal, said David Jasinski, an analyst for the **Chesapeake Bay** Program, a partnership of Maryland, Pennsylvania, Virginia, Washington, D.C., and the U. S. Environmental Protection Agency.

Naylor said he can't say for certain that global warming caused the bay's temperature spike. But he said the unusual jump - with temperatures hitting more than 90 degrees in some shallow areas - exceeded the roughly 85-degree tolerance level for eelgrass. "Certainly global warming has major implications for the sea grass community in the **Chesapeake Bay**," Naylor said.

William J. Goldsborough, director of the fisheries program at the **Chesapeake Bay** Foundation, said other scientists have linked the death of coral in the Pacific and Atlantic oceans to climate change. "It's very possible that global warming is also affecting **Chesapeake Bay** water temperatures," Goldsborough said. "And the loss of grasses in the lower bay is a critical problem for the blue crabs."

Different species of underwater vegetation are thriving in other areas of the Chesapeake.

Grasses that live in fresh water and are less sensitive to heat, such as wild celery and milfoil, have flourished around the mouth of the Susquehanna River. The water has been clearer there, and striped bass that take shelter in these grasses are numerous. Hydrilla, an invasive species of plant, is so thick in the Potomac River that small boats sometimes get stuck.

A study by the **Chesapeake Bay** Program found that aquatic plants cover about 39 percent of the 185,000 acres of the bay that should be covered.

The report also said that plant health varies widely in different regions of the bay, with 92 percent of the upper bay meeting the program's goals for coverage, compared with 29 percent of the middle bay and 42 percent of the lower bay. These numbers were calculated before last summer's die-off of eelgrass.

"Grasses serve as an excellent barometer for the overall health of the bay," said the **Chesapeake Bay** 2005 Health and Restoration Assessment.

Naylor and two other biologists with the Department of Natural Resources recently set off from a pier near Crisfield to inspect the health of eelgrass in Tangier Sound.

The bright blue sky was streaked with clouds as Naylor stood near the front of the boat, one foot up on the gunwale, scanning the horizon - a bit like the famous painting of George Washington crossing the Delaware River. Except that Naylor was clutching a green-handled garden rake.

(Sun photo by Kenneth K. Lam)

May 10, 2006

## Map



## Dying eelgrass

May 13, 2006

## Related Articles

### Go fish

With a bit of patience -- and the right spot -- you can show the kids some old-fashioned fun

May 13, 2006

### Wildlife webcams on perch of reality

May 13, 2006

## Photo Gallery

### The Day in Pictures

## Relocation Guide




### On the Move

Baltimoresun.com's guide to relocating in Maryland

## College Guide

### On Campus: Live & Learn

 Our guide features profiles of Maryland's colleges and universities, campus photo galleries, event