

## Impact of global warming on fishing in Rhode Island

by Capt. Dave Monti



The global warming issue had a big media presence in December due to the international climate conference in Copenhagen. The evidence of global warming continues to mount. Those that do not believe that global warming is created by man, claiming the warming trends are cyclical, that they are normal and not part of the earth's response to greenhouse gasses. However, mounting evidence points to warming air and earth.

Some of the evidence is local and regional in nature and has a direct impact on Narragansett Bay, nearby coastal waters and fishing.

There is plenty of anecdotal information that Narragansett Bay is getting warmer. Throughout the past two centuries, hundreds of Rhode Islanders have recounted stories of a frozen Bay, frozen enough to travel by sleigh over ice from Fall River, to Bristol, to Newport. And, reports of frozen ferry boats stuck in ice that was 12 inches thick and stories of automobiles driving on Bay ice. We have not seen Bay ice this thick in a long time.

In fact the Bay is warming. According to a University of Rhode Island Graduate School of Oceanography data keep since 1959 Bay temperatures have increased about three (3) degrees Fahrenheit, said professor **Jeremy Collie** (as reported in a January 12, 2009 article in the East Bay Newspapers).



Jeremy Collie

According to scientists, Narragansett Bay temperatures parallel the rise in New England's winter air temperatures with an increase of about 4.5 degrees since 1970.

Professor Collie said that the increase in Bay temperature has created "big changes in the food web..." of the Bay. A delay in spring algae bloom that normally occurs in late winter and early spring has been delayed into the summer. Cold water fish like winter flounder are fewer in numbers and scientists are attributing this to the warming trend.

In a recent AP story, a study by the National Oceanic and Atmospheric Administration (NOAA) related that rising water temperatures are helping drive many of New England's fish populations farther from shore and into deeper water.

In this study NOAA biologists analyzed water temperature trends from North Carolina to the Canadian border off Maine from 1968 to 2007. They then looked at fish survey data collected each spring and assessed where the fish were caught and how abundant they were.

Some fish species experienced a lot of movement while other species exhibited little movement to the north, but rather they moved to deeper waters where temperatures are lower.

Small-boat fishermen in Rhode Island and Massachusetts used to catch most of their haddock, flounder, and cod in waters close to shore. **Tom Dempsey** of the Cape Cod Commercial Hook Fishermen's Association said the fish were close to shore 20 years ago. Nowadays, fishermen have to travel as far 100 miles offshore to find those same fish.

At the same time, he said, Massachusetts fishermen are catching more fish traditionally found in the Middle Atlantic — Atlantic croaker for example which is caught off Virginia and North Carolina.

So we have mounting evidence that the air and water (right here in Narragansett Bay) is warming. So now the question is... is it a natural cycle of the earth or is the warming being created by man. Most of the Copenhagen conference believed it is being created by man and that countries should agree to limit their carbon output. Major disputes at the Copenhagen conference had developed between developing nations and leading industrial nations on an equitable carbon reduction plan for all. However, most nations do agree we should try to stop global warming.

I agree we should limit carbon output and slow or stop global warming.

If we had two earths to test this theory it would be get (as suggested by a recent NPR story). One earth where we limited carbon output and another earth where we did not. We could find out who is right. But we only have one earth and I am not willing to risk it.

Global warming definition from Wikipedia:

Global warming is the increase in the average temperature of earth's near-surface air and oceans since the mid-20th century and its projected continuation. Global surface temperature increased  $0.74 \pm 0.18$  °C ( $1.33 \pm 0.32$  °F) between the start and the end of the 20th century. The [Intergovernmental Panel on Climate Change](#) (IPCC) concludes that most of the observed temperature increase since the middle of the 20th century was [caused](#) by increasing concentrations of [greenhouse gases](#) resulting from [human activity](#) such as [fossil fuel burning](#) and [deforestation](#). The IPCC also concludes that variations in natural phenomena such as [solar radiation](#) and [volcanism](#) produced most of the warming from [pre-industrial](#) times to 1950 and had a small cooling effect afterward. These basic conclusions have been [endorsed by more than 40 scientific societies and academies of science](#), including all of the [national academies of science](#) of the [major industrialized countries](#).