In hot water: World sets ocean temperature record (Update)

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Luis Torres, right, plays with his son Angel, 6, in the waters off Pine Point Beach Wednesday, Aug. 19, 2009 in Scarborough, Maine. The world's oceans this summer are heating up to their warmest on record. (AP Photo/Joel Page)

(AP) -- Steve Kramer spent an hour and a half swimming in the ocean this week - in Maine.

The water temperature was 72 degrees - more like Ocean City, Md., this time of year. And Ocean City's water temp hit 88 degrees, toasty even by Miami Beach standards.

Kramer, 26, who lives in the seaside town of Scarborough, said it was the first time he's ever swam so long in Maine's coastal waters.

It's not just the ocean off the Northeast coast that is super-warm this summer. July was the hottest the world's oceans have been in almost 130

years of record-keeping.

The average water temperature worldwide was 62.6 degrees, according to the National Climatic Data Center, the branch of the U.S. government that keeps world weather records. June was only slightly cooler, while August could set another record, scientists say. The previous record was set in July 1998 during a powerful El Nino.

Meteorologists said there's a combination of forces at work: A natural El Nino weather pattern just getting started on top of worsening man-made global warming, and a dash of random weather variations. The resulting ocean heat is already harming threatened coral reefs. It could also hasten the melting of Arctic sea ice and help hurricanes strengthen.

The Gulf of Mexico, where warm water fuels hurricanes, has temperatures dancing around 90. Most of the water in the Northern Hemisphere has been considerably warmer than normal. The Mediterranean is about three degrees warmer than normal. Higher temperatures rule in the Pacific and Indian Oceans.

The phenomena is most noticeable near the Arctic, where water temperatures are as much as 10 degrees above average. The tongues of warm water could help melt sea ice from below and even cause thawing of ice sheets on Greenland, said Waleed Abdalati, director of the Earth Science and Observation Center at the University of Colorado.

Breaking heat records in water is more ominous as a sign of global warming than breaking temperature marks on land, because water takes longer to heat up and does not cool off as easily as land.

"This warm water we're seeing doesn't just disappear next year; it'll be around for a long time," said climate scientist Andrew Weaver of the University of Victoria in British Columbia. It takes five times more

energy to warm water than land.

The warmer water "affects weather on the land," Weaver said. "This is another yet really important indicator of the change that's occurring."

Georgia Institute of Technology atmospheric science professor Judith Curry said water is warming in more places than usual, something that has not been seen in more than 50 years.

Add to that an unusual weather pattern this summer where the warmest temperatures seem to be just over oceans, while slightly cooler air is concentrated over land, said Deke Arndt, head of climate monitoring at the climate data center.

The pattern is so unusual that he suggested meteorologists may want to study that pattern to see what's behind it.

The effects of that warm water are already being seen in coral reefs, said C. Mark Eakin, coordinator of the National Oceanic and Atmospheric Administration's coral reef watch. Long-term excessive heat bleaches colorful coral reefs white and sometimes kills them.

Bleaching has started to crop up in the Florida Keys, Puerto Rico and the Virgin Islands. Typically, bleaching occurs after weeks or months of prolonged high water temperatures. That usually means September or even October in the Caribbean, said Eakin. He found bleaching in Guam Wednesday. It's too early to know if the coral will recover or die. Experts are "bracing for another bad year," he said.

The problems caused by the El Nino pattern are likely to get worse, the scientists say.

An El Nino occurs when part of the central Pacific warms up, which in

turn changes weather patterns worldwide for many months. El Nino and its cooling flip side, La Nina, happen every few years.

During an El Nino, temperatures on water and land tend to rise in many places, leading to an increase in the overall global average temperature. An El Nino has other effects, too, including dampening Atlantic hurricane formation and increasing rainfall and mudslides in Southern California.

Warm water is a required fuel for hurricanes. What's happening in the oceans "will add extra juice to the hurricanes," Curry said.

Hurricane activity has been quiet for much of the summer, but that may change soon, she said. Hurricane Bill quickly became a major storm and the National Hurricane Center warned that warm waters are along the path of the hurricane for the next few days.

Hurricanes need specific air conditions, so warmer water alone does not necessarily mean more or bigger storms, said James Franklin, chief hurricane specialist at the National Hurricane Center in Miami.

On the Net:

National Climatic Data Center on July 2009:
http://www.ncdc.noaa.gov/sotc/?reportglobal&year2009&month7

NOAA's coastal water temperature guide:
http://www.nodc.noaa.gov/dsdt/cwtg/all.html