



Riverlovers Currents

Volume 30, Number 1, January 2017

Message from the President

Last year I was wondering when it would get cold. This year we have a Polar Vortex, though the forecast was 50 degrees for tomorrow. Climate change is definitely here!

2016 was a good year for the Riverlovers, with many activities such a visit to the Bronx Botanical Garden, Iona Island Marsh, Perkins Memorial tower, Sunny Ridge Park Preserve, sails on the Solar Wind, and a well-attended sail on Hudson River Sloop Clearwater.

For the December Potluck we screened part 3 of "*9 Months That Made You.*" This part delved into skeleton and bone formation, fetal blood with increased oxygen capacity, infant memory, color blindness and increased night vision, and pre-natal stress, and ended with a dramatic water birth.

I felt that "*9 Months....*" was very informative but not necessarily environmental. However, the pre-natal stress segment brought up the environmental aspect of stress. Seventeen years ago Quebec had the worst ice storm in memory, with most of the high voltage power towers collapsing under the weight of the ice, causing a total loss of electricity to the city and towns for many weeks in winter. There were hundreds of women ready to give birth. A long-term study was conducted on some of the women who endured the stress of no electric power while pregnant. The results were astounding. There were increased chances of asthma, autism, obesity, food allergies, lower language skills and lower IQ. There was a correlation between the number of days without power and percentage of children born with problems. Imagine: one quarter of the world population is without access to electric power! Talk about stress!

On Saturday, January 14, 2017 we will carpool to the Dia: Beacon Museum near the Beacon train station. We will meet at the Annsville Paddlesport parking lot at the Annsville Circle, at 12 noon. This is a free admission day for residents of the surrounding counties. The address is 3 Beekman Street, Beacon NY 12508. Directions: Rte. 9 North to Rte. 403 (on your left) to Rte. 9D North all the way to Beacon. Turn left at Beekman Street. The museum showcases modern sculptures and interactive exhibits.

For the January 20, 2017 Potluck on Friday evening at 6:30pm, we will screen either "American Eagle" or "A Sidewalk Astronomer" featuring John Dobson, inventor of an inexpensive mount for a telescope, which brought star-gazing to millions.

We are excited about Teatown's annual Hudson River EagleFest. This year it will be held on Saturday, February 11 (inclement weather date is Sunday, February 12).

Riverlovers will once more be serving home-made and donated soups and baked breads at the Croton Point Nature Center for volunteers and vendors from 11am to 2pm. We need volunteers to bring soups, breads and butter, and to help serve. We also need volunteers for the Outreach Table from 9am to 4pm. Riverlovers will get plenty of exposure, since large crowds are expected at the big tent. Call Gunnar at (914) 432-3112 if you can help with soups at the Nature Center or call Warren at (914) 739-9028 if you can help out at the Outreach Table. If you are, or even if you are not volunteering at the EagleFest, please come and see the various activities.

At the February 17th Potluck we'll screen "*Plasticized,*" a documentary about trolling in the Pacific Ocean for all the plastic that is such a danger to sea life. We're also exploring the possibility of visiting the Lincoln Depot Museum in Peekskill, in February or March. Stay tuned.

Come to our meetings and activities. Members and non-members are welcome. Together we can be educated and educate others to protect the Hudson River and save the Earth and its climate for ourselves and future generations.

Walkabout Coffeehouse In January

The January 14th concert of Walkabout Clearwater Coffeehouse's 29th season is *upstairs* in the Sanctuary at White Plains Memorial United Methodist Church. It features Mustard's Retreat, entertaining audiences for four decades, as well as Rev. Robert Jones and Matt Watroba, performing a broad range of authentic American roots music.

Tickets are \$18.00 in advance (until 7:30 a.m. on the day of the concert) and \$23.00 at the door. Students with ID are \$15.00 and children ages 6 to 12 are \$10.00.

Doors open at 6:30pm, the concert begins at 7:30. The trademark informal audience songfest with the Walkabout Clearwater Chorus begins at 6:45. Come sing with us!

Pay your dues now—support our river! \$25 Individual & \$35 Family

It cost \$9.40 a year to send you the *Riverlovers Currents*. Please consider adding at least that much to your annual dues. Support your Newsletter and the river, and get your friends to join you.

Is There A Difference?

What's the Difference between Global Warming and Climate Change? You can call it global warming or climate change, but it's the biggest crisis humanity has ever faced.

The Internet is full of references to global warming. But many of us don't use the term "global warming" much. Instead, we prefer to use "climate change."

Why?

Global warming and climate change—while closely related and sometimes used interchangeably—technically refer to two different things:

"*Global warming*" applies to the long-term trend of rising average global temperatures.

"*Climate change*" is a broader term that reflects the fact that carbon pollution does more than just warm our planet. Carbon pollution is also changing rain and snow patterns and increasing the risk of intense storms and droughts.

So what's the difference? To a scientist, global warming describes the rise in average surface temperatures we see resulting from human emissions of greenhouse gases.

Although "global warming" seems to have first appeared in a 1957 newspaper editorial, the term is widely attributed to Wallace Broecker's 1975 paper "Climatic Change: Are We On the Brink of a Pronounced Global Warming?"

Broecker's term was a break with tradition. Earlier studies of human impact on climate had called it "inadvertent climate modification." This was because, while many scientists accepted that human activities could cause climate change, they did not know what the direction of change might be. Industrial emissions of tiny airborne particles called aerosols might cause cooling, while greenhouse gas emissions would cause warming. And in the middle of the twentieth century, scientists wondered which effect would dominate.

Through most of the 1970s, few were certain. So "inadvertent climate modification," while clunky and dull, was an accurate reflection of what we knew.

The first decisive National Academy of Science study of carbon dioxide's impact on climate, published in 1979, abandoned "inadvertent climate modification." Often called the Charney Report for its chairman, Jule Charney of the Massachusetts Institute of Technology, it declared: "If carbon dioxide continues to increase, [we find] no reason to doubt that climate changes will result and no reason to believe that these changes will be negligible."

In place of "inadvertent climate modification," Charney adopted Broecker's language. When referring to surface temperature change, Charney spoke of "global warming." When discussing the many other changes that would be induced by increasing carbon dioxide, Charney called them what they were: "climate change."

"Global Warming" Enters the Popular Lexicon:

During the late 1980s, one more term entered the lexicon: "global change." This term encompassed many other kinds of change in addition to climate change. Reflecting the understanding that climate change could be part of an even larger picture, when the U.S. Global Change Research Program was approved in 1989, climate research was a key theme area.

"Global warming" became the dominant popular term in June 1988, when NASA scientist James E. Hansen testified to Congress about climate, specifically referring to global warming. He said: "Global warming has reached a level such that we can ascribe with a high degree of confidence a cause and effect relationship between the greenhouse effect and the observed warming." Hansen's testimony was very widely reported in popular and business media, and after that, popular use of the term "global warming" exploded. "Global change" never gained traction in either the scientific literature or the popular media.

But What About the Other Effects We're Observing in a Warmer World?

Temperature change itself isn't the only severe effect of changing climate. Changes to precipitation patterns and sea levels are likely to have much greater human impact than the higher temperatures alone. For this reason, scientific research on climate change encompasses far more than surface temperature change. So "global climate change" is the more all-inclusive and scientifically accurate term. Like the Intergovernmental Panel on Climate Change—the UN's body for assessing climate science—we've chosen to emphasize global climate change, not just global warming.

Here's What You Need To Remember:

Don't fall prey to the idea that the increased popular usage of "climate change" means global warming is no longer happening. Both climate change and global warming are still a reality.

Whether referred to as "global warming" or "climate change," the consequences of the enormous changes currently being observed in Earth's climate system are undeniable. That's why we need leaders who will act to address one of the greatest challenges we've ever faced—instead of merely quibbling over terminology.

The Carbon Dioxide Problem

While methane and other greenhouse gases contribute to climate change, carbon dioxide is public enemy number one. Most carbon dioxide in our atmosphere comes from burning fossil fuels like coal, natural gas, and oil—but animal agriculture, deforestation, and soil erosion also contribute.

Greenhouse gases trap heat in our atmosphere in a process known as the greenhouse effect. The greenhouse effect is a good thing; it's what keeps our planet at a habitable temperature. But since the start of the Industrial Revolution, carbon pollution levels have skyrocketed from about 280 ppm (parts per million) to 400 ppm due to human activity. That's well beyond natural levels, and it's behind the warming we see today. Carbon dioxide in our atmosphere fluctuates over time, but scientists believe that we will not see levels below 400 ppm again in our lifetimes.

Research also shows that our oceans and forests are incredible carbon sinks (meaning they take up and store a large percentage of our emissions). By removing CO₂ from the atmosphere, carbon sinks delay some consequences of burning fossil fuels. But we can't rely on these natural sinks forever. Our oceans are becoming more acidic as the carbon dioxide it stores binds with water to create carbonic acid. And, according to the World Wildlife Foundation, "some 46,000 - 58,000 square miles of forest are lost each year—equivalent to 48 football fields every minute."



What's Happening When

Sundays, 10am–3pm, **Farmers' Market** at the Beacon Sloop Club, at Long Dock Park in Beacon. Local cheeses, eggs, pasta, bread, lamb, fruits and vegetables.

Jan 14, Sat, 7:30pm, **Walkabout Clearwater Coffeehouse featuring Mustard's Retreat, and Rev. Robert Jones & Matt Watroba.** *Upstairs* in the Sanctuary at Memorial United Methodist Church, 250 Bryant Ave, White Plains. Tickets are \$18.00 in advance (until 7:30 a.m. on the day of the concert) and \$23.00 at the door. Students with ID are \$15.00 and children ages 6 to 12 are \$10.00. www.BrownPaperTickets.com/producer/5602 for advance tickets via credit card. Open seating. Proceeds benefit Walkabout & Clearwater. Refreshments available. Free parking. Sing with the Walkabout Clearwater Chorus at its informal Teachabout starting at 6:45pm. Info: www.WalkaboutClearwater.org.

Jan 14, Sat, noon, **Riverlovers trip to Dia: Beacon Museum.** Meet & carpool from Annsville Paddlesport parking lot at Annsville Circle. See page 1 for more details.

Jan 20, Fri, 6:30pm, **Riverlovers Monthly Potluck** at Croton Point Nature Center. We will screen either "American Eagle" or "A Sidewalk Astronomer," and prepare for EagleFest (see page 1). Info: www.riverlovers.org.

Feb 11, Sat, **EagleFest at Croton Point.** Riverlovers serve soup & bread lunch for EagleFest volunteers. See details on page 1, sign up, & save the date.

The Clean Energy Solution

Alright, so we know climate change is a big deal and it's impacting our lives today. But what should give you hope is the fact that *we have solutions available right now.*

More people than ever are employed by the clean energy sector—8.1 million, actually (according to 2015 data from REN21). The industry is booming! It doesn't hurt that about half a million solar panels were installed every day in 2015. But Big Polluters try to sell the public myths about clean energy all the time: "It's too expensive," "it isn't reliable," or "it's unnecessary because we have fuels like natural gas."

Despite its benevolent-sounding name, natural gas is a dirty, dangerous fossil fuel. It's primarily made up of methane, a highly flammable and very potent greenhouse gas. Did you hear about the massive 2015 natural gas leak in California? Surrounding communities had to be evacuated, people reported bloody noses and respiratory problems, and, at one point, the leak constituted the single greatest contributor to climate change in the entire state of California.

We need to abandon natural gas and other dirty fossil fuels. *Clean energy just makes sense for our health and our climate—but it also makes sense for our bank accounts.*

With the cost of wind and solar continuing to plummet—just look at how the cost of solar panels fell 80 percent between 2009 and 2016—energy from renewables costs *about the same or less than energy from fossil fuels* in more and more regions around the world. This makes it possible for powerhouse nations like Germany and Denmark to generate huge portions of their electricity from solar and wind and grow very healthy economies.

Here's how to join Riverlovers...

(the local Clearwater Sloop Club in the Northern Westchester-Putnam County area)

Application for Riverlovers Membership

Name _____

Address _____

City _____ State _____

Zip _____ Telephone _____

Renewal ___ New ___ Additional Contribution \$ _____

Please send check (\$25 individual, \$35 family) for 2017 to: Riverlovers, P.O. Box 285, Croton-on-Hudson, NY 10520.

I want to have *Riverlovers Currents* delivered electronically.

Send to this e-mail _____

Yes! I Also Want To Join Clearwater

Please sign me up in the following membership category:

- | | | | |
|-----------------------------------|-------|--------------------------------------|--------|
| <input type="radio"/> Individual | \$40 | <input type="radio"/> Mariner | \$500 |
| <input type="radio"/> Family | \$55 | <input type="radio"/> Sailing-Master | \$1000 |
| <input type="radio"/> Contributor | \$100 | <input type="radio"/> Benefactor | \$5000 |
| <input type="radio"/> Sponsor | \$200 | <input type="radio"/> Student | \$10 |

Name _____

Address _____

City _____ State _____ Zip _____

Please include check payable to Clearwater, or charge by credit card

- | | | | |
|----------------------------|--------------------------|--------------------------------|----------------------------|
| <input type="radio"/> Visa | <input type="radio"/> MC | <input type="radio"/> Discover | <input type="radio"/> Amex |
|----------------------------|--------------------------|--------------------------------|----------------------------|

Account No. _____

Exp. Date _____ Signature _____

Mail To: Clearwater, Inc.
724 Wolcott Avenue
Beacon, NY 12508

Your Clearwater membership gets you the *Navigator* and other benefits, along with being part of Riverlovers' "parent" organization representing individuals and Sloop Clubs up and down the Hudson Valley "working for the River."

Riverlovers - Who We Are

Riverlovers, Inc. is a chartered Sloop Club of the Hudson River Sloop Clearwater, Inc., an environmental non-profit membership organization whose most visible symbol is its member-owned and operated 106-ft. sloop "Clearwater." As a local affiliate, River-lovers' purposes are:

- Maintaining an active Sloop Club in the Northern Westchester-Putnam County area;
- Meeting the needs and interests of individuals through a variety of interest groups, including monthly Potluck dinner meetings with varied programs, environmental education and awareness, boats and sailing, concerts and festivals;
- Organizing trips and recreational activities, seminars and workshops, learn-to-sail programs and Clearwater visits;
- Research, education and action to protect our rivers and our environment;
- Working for access and effective land use along the Hudson River and its tributaries;
- Boating projects on the Hudson River, to reach out to the surrounding community for educational and recreational purposes.

We invite you to join us. Contact our interest group coordinators, or write to Riverlovers, Inc., P.O. Box 285, Croton-on-Hudson, NY 10520. Together we can do a lot!



Interest Group Coordinators

Interest Group	Coordinator	Phone
Envir. Education	Bill Flank	238-8240
Membership	Gunnar Andersen	432-3112
Newsletter	Bill Flank	238-8240
Newsletter Distribution	Cynthia Andersen	432-3112
Outreach	Warren Lindholm	739-9028
Photographer/Archivist	Beverly Dyckman	739-5057
Potluck	Warren Lindholm	739-9028
Publicity		

Web Page: www.riverlovers.org

Riverlovers Officers

President:	Warren Lindholm	739-9028
Vice Pres. (programs):		
Secretary:	Cynthia Andersen	432-3112
Treasurer:	Daria Gregg	944-8396
President-Emeritus	Gunnar Andersen	432-3112

Newsletter Submissions

Please send news articles and other items of interest to Riverlovers Currents, P.O. Box 285, Croton-on-Hudson, NY 10520. Include your name, address, and phone number. Names can be omitted on request.

Back issues of *Riverlovers Currents* are available at our web site, www.riverlovers.org

Newsletter Committee: Editor, Bill Flank; Associate Editor, Mel Fitting

January Newsletter Contributors: Bill Flank, Warren Lindholm

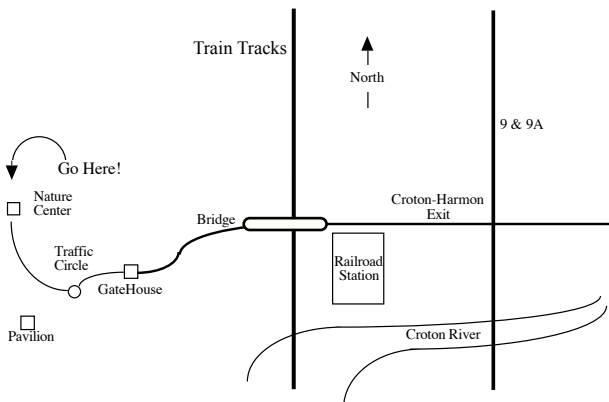
Riverlovers Monthly Potluck and documentary screening



Riverlovers, Inc.

P.O. Box 285

Croton-on-Hudson, NY 10520



Friday, January 20, 2017

6:30pm

Croton Point Nature Center