

Sound *UPDATE*

Newsletter of the Long Island Sound Study

SPRING 2008

Climate Change Expected to Affect Plants and Animals in Long Island Sound

By Nancy Balcom

Estuaries like Long Island Sound (LIS) face multiple stressors from industrialization, a concentrated coastal populace, coastal development, and myriad commercial and recreational activities. While the estuarine environment is, by nature, variable and changing, necessitating inhabitant resiliency, climate change is very likely, among other effects, to affect the distribution and interaction of native estuarine organisms, especially if ecological adaptation cannot keep up. Further, many non-native species thrive in disturbed environments, especially those with characteristics promoting invasive tendencies.

An anticipated effect of climate change on native organisms is the local elimination of some species, as their ranges contract or shift. These changes in turn might cause other changes in the ecosystem, as new predator-prey relationships or diseases emerge, and competition for and the use of resources are affected. While climate change may not directly cause extinction, it can alter both a species' ability to interact with others and its response to other stressors.



Peter Auster, NURC, UCONN

Warming waters could be forcing the range of the cold-water winter flounder to shift north, away from Long Island Sound.

Temperature is one of the most significant factors of estuarine systems influencing organisms. It affects their growth, reproduction, behavior and mortality. Many species are sensitive to temperature changes of a few degrees outside their normal range. The LIS estuary is unusual in that it sits between two biogeographic provinces (i.e., the Virginia Province to the south, and the Boreal Province to the north of Cape Cod), and supports both cold-water and warm-water estuarine and marine species. A rise in water temperature of

Continued on page 5.

Update Focuses on Climate Change

Climate change is defined as changes in weather patterns (including temperature, rain, and wind) over a long period of time. These changes can be caused by shifts in the composition of gases or concentrations of particles in the atmosphere by both natural factors (such as volcanic eruptions) and human-influenced factors (such as the burning of fossil fuels).

The Earth's temperature is, in part, regulated by the amount of greenhouse gases in our atmosphere. These gases trap heat and make the Earth inhabitable. However, over the past two hundred years greenhouse gases, including carbon dioxide, have increased significantly due to human influences, such as the burning of fossil fuels and the clearing of forests.

The Intergovernmental Panel on Climate Change (IPCC) reports that increased greenhouse gas concentrations are very likely to raise the Earth's average temperature, and influence precipitation and storm patterns. These changes in climate will affect ecosystems, human health, agriculture, and sea levels.

This newsletter will discuss the potential impacts of climate change related to Long Island Sound, the regional, state, and community efforts to reduce these impacts, and some simple ways that you can help.

Inside:

2 Residents switch to solar power

Stamford's innovative idea

3 NY and CT reduce emissions

Raacke recipe for a green home

4 Marsh drowning

5 Storms and climate change

6 Living the Green Dream

Fight climate change

7 Congressional member profile

8 What you can do to fight climate change

Sound *Update* is published by the public outreach program to inform the public about issues pertaining to the Long Island Sound Study.

Long Island Residents Switch to Solar Power

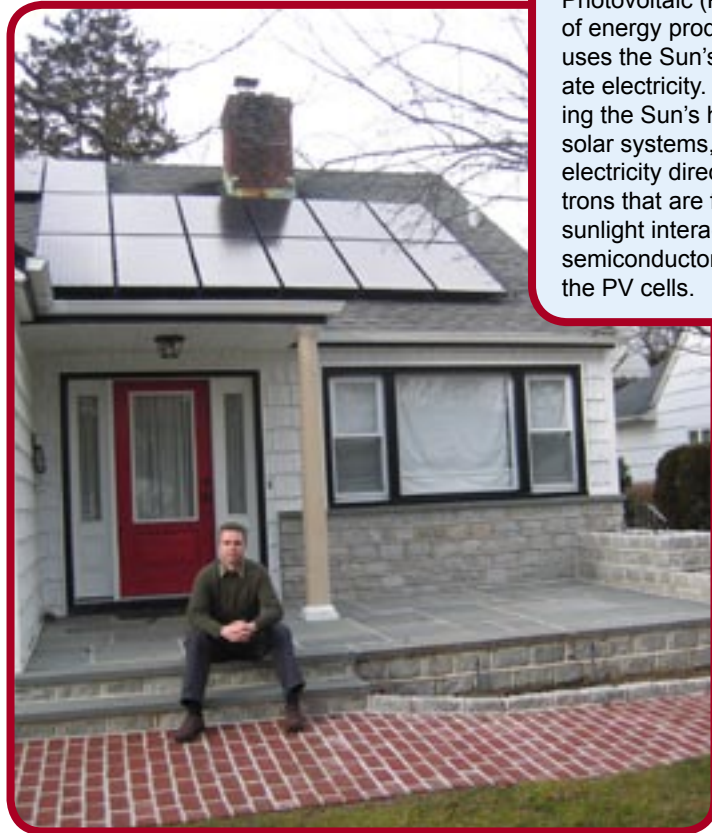
By Kyle Rabin

Over one thousand homes on Long Island now sport a photovoltaic system. "RELI had a goal to see 1,000 solar roofs installed on Long Island by the end of 2007 and we were thrilled to have reached this important solar milestone six months ahead of schedule," says Gordian Raacke, Executive Director of Renewable Energy Long Island (RELI), a not-for-profit organization conducting outreach and education on clean energy technologies and providing information and assistance to home owners interested in installing solar energy systems.

In 1999 there were only a handful of solar installations on Long Island. This program has been enormously successful due to the efforts of RELI's SolarCorps, a volunteer network created and supported by RELI. Long Island's "Solar Pioneers" have led the way into the world of photovoltaics by taking advantage of the generous LIPA rebate and investing in solar panels.

According to Mr. Raacke, "Thanks to attractive Long Island Power Authority (LIPA) cash rebates, sizable tax credits, and the work of our tireless SolarCorps volunteers and solar home owners, a record number of Long Island Solar Pioneers are doing their part to lower emissions, create local jobs and cut our dependency on fossil fuels."

Rabin is the Director of the Network for New Energy Choices. Rabin is also a RELI SolarCorps volunteer and one of the L.I. Solar Pioneers.



Kyle Rabin

Did you know?

Photovoltaic (PV) is a form of energy production that uses the Sun's power to create electricity. Instead of using the Sun's heat like other solar systems, PV produces electricity directly from electrons that are freed when the sunlight interacts with the semiconductor materials in the PV cells.

Long Island goes SOLAR!

Approximately 50 to 55% of the annual electricity needs of Kyle Rabin's 1,600 square foot home are met by the home's 3.2 kW photovoltaic array.

Stamford's Innovative Idea: Converting Waste to Energy

By Jeannette Brown

The Stamford Water Pollution Control Authority (SWPCA) in Connecticut is in the process of developing a unique way to generate electrical power. Due to the high cost of energy and dependence on foreign oil and non-renewable energy sources, Stamford is working on using wastewater to generate energy.

The goal of Stamford's Waste-to-Energy project is to develop the technology needed to convert dried wastewater pellets into a renewable fuel that can be used to generate power. This two-phase process began in 2005 with development of the drying and pelletizing process for wastewater residuals. Now in Phase 2, the SWPCA team is working to develop and design the facility.

Stamford's Waste-to-Energy project has been well-received. This new facility could supply enough energy to supply many critical urban resources, including hospitals, police and first responder facilities, and communications facilities. The Waste-to-Energy project has generated federal funding from the Department of Energy and the Environmental Protection Agency and is expected to serve as a state and national leader in innovative, renewable energy projects.

Brown is the Executive Director of the Stamford Water Pollution Control Authority.

On the web...

www.renewableEnergyLongIsland.org
www.Green-e.org
www.powernaturally.org
www.solarconnecticut.org

Learn more about solar installations, cost, and rebates, and other sources of renewable energy!

NY and CT Strive to Reduce Emissions

By Larissa Graham

At the National level, the United States is committed to reducing the greenhouse gas intensity of the American economy by 18 percent by the year 2012. The programs initiated by state and local governments will play an important role in achieving this goal. Some states, as is the case for Connecticut and New York, have set even more aggressive greenhouse gas reduction goals.

In 2003, New York Governor Pataki initiated a cooperative effort to reduce emissions of carbon dioxide, called the Regional Greenhouse Gas Initiative (RGGI). The cap-and-trade program will initially be aimed at reducing carbon dioxide from power plants in the participating states, while maintaining energy affordability. In 2020, these states plan to reduce emissions roughly equivalent to 1990 levels. Currently, other participating states include Delaware, Maine, Massachusetts, New Hampshire, New Jersey, Vermont, and Maryland.

Besides participating in RGGI, Connecticut is also a part of the New England Governors Climate Change Action Plan. By 2010, participating states (including Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont) plan to reduce gas emissions to 1990 levels; and, by 2020, reduce emissions to 10% below 1990 levels.

Connecticut and New York are also among the 29 states that have developed Climate Change Action Plans to identify feasible and effective policies to reduce greenhouse gas emissions. Connecticut was the first New England state to join

EPA's Green Power Partnership and voluntarily purchase green power to represent 12 percent of the state's total annual electricity usage. Governor Rell's Energy Vision for a Cleaner, Greener State set a goal of having 20 percent of Connecticut's energy come from clean, renewable sources by the year 2020.

According to The State Energy Efficiency Scorecard for 2006, Connecticut and New York lead the nation in adopting energy efficient policies, programs, and technologies. Connecticut ranks as the most energy-efficient state in the nation (tied with California and Vermont) and New York is also one of the leading states, ranking seventh in the nation.

Recipe for a green home!

A 2.64 kW photovoltaic array produces all of the electricity for Gordian Raacke's 1,800 square foot energy efficient home. Gordian also drives a Toyota Prius hybrid.



Gordian Raacke

The Raacke Recipe for a Green Home

By Gordian Raacke

When my wife and I began planning to build our home, we discussed more than just how many rooms it should have. We wanted to be able to afford our house, now and in the future (low construction, maintenance and utility costs); we wanted to live in a safe environment (fewer toxins); and we were determined to impose a lesser burden on the environment (burning less fossil fuel, using more recycled building materials, reducing our carbon footprint).

At first, it seemed impossible to meet all these objectives, but then we found the perfect recipe for us. Here are the chief ingredients: 1) Start with A Tight House. We built a super-insulated building envelope and sealed all air leaks. 2) Add Some Sun. We designed the house to let the winter sunshine in through lots of glass on the south side and store that heat in our tile floor. 3) Top it off with Efficient Appliances, Lighting, Solar Electric and a Solar Water Heater. We quickly recuperated the extra cost of these items through our utility bill savings.

The bottom line is that our electric bill is virtually zero (we happily pay the \$6 monthly service charge so that we can sell excess electricity into the grid) and our space and water heating costs are minimal. Saving on our utility bills each month sure feels good, but knowing that we help reduce greenhouse gas emissions makes us feel even better. And, maybe the best thing in a solar hybrid house, is the fact that you are able to sunbathe in the middle of winter, right in your own living room!

Raacke trained as a civil engineer, specializes in clean energy issues and is the Executive Director of the not-for-profit Renewable Energy Long Island.

Marsh Drowning in Long Island Sound

By Shimon Anisfeld

Long Island Sound's tidal marshes are highly productive components of the coastal landscape, providing valuable habitat and serving important functions. These wetlands are well-protected by legislation from direct impacts, such as dredging and filling. However, several sites in Long Island Sound (LIS) have been experiencing marsh drowning, in which the marsh becomes too wet to support vegetation and is converted to open mudflats.

The causes of marsh drowning in LIS are unclear. While sea level rise is occurring in LIS, the rate of this rise is relatively low (~2.3 mm yr⁻¹) and has apparently not changed since the mid-19th century. In the absence of other stressors, we would expect marshes to be able to adjust to this rate of sea level rise by accumulating inorganic sediment and organic material in order to maintain their elevation relative to the water level.

Our recently-completed research funded by the Long Island Sound Study examined the possible role that excessive loading of nutrients (nitrogen or phosphorus) might play in contributing to marsh drowning. We hypothesized that high inputs of nitrogen or phosphorus (e.g., from sewage or urban runoff) might lead to a decrease in the belowground productivity of the marsh plants or to an increase in the rate of belowground decomposition. Either of these phenomena would result in less organic material accumulating in the marsh peat and could lead to drowning.

We tested this hypothesis by adding nutrients for 3 years to salt marsh plots at Hoadley Creek, a stable marsh system in Guilford, CT. While we found some changes in marsh processes as a

result of fertilization, we did not see substantial differences in belowground processes or in the net elevation change of the marsh. As a result, we now consider it unlikely that excess nutrient loading is a major contributor to marsh drowning. Also supporting this conclusion is the fact that the drowning marsh that we examined had lower nutrient concentrations than the stable marsh.

In addition to our fertilization experiment at Hoadley, we also examined 2 other marshes: a drowning marsh (Sherwood Island, Westport, CT) and a restoring marsh (Jarvis Creek, Branford, CT). We found that the restoring marsh was gaining elevation very rapidly, while our plots at the drowning marsh were still gaining elevation, but relatively slowly. We attribute these differences primarily to differences in the movement of water and sediment at these sites, rather than to differences in plant productivity.

Drowning at Sherwood Island might be explained by local changes in the hydrology. Is this true at other drowning sites in LIS? Is the observed drowning at multiple sites in western LIS a collection of local-scale phenomena or a true regional-scale process? If the latter, then sea level rise would seem to be the key factor, but, as mentioned above, tide gauge data do not yet show an acceleration in the rate of sea level rise. The puzzle remains.

In any case, it seems quite likely that the coming decades will lead to an acceleration in sea level rise, as the world's glaciers and ice sheets continue to melt, and the ocean's waters continue to warm. For Long Island Sound's tidal marshes – many of which are already experiencing drowning – that is likely to spell trouble.

Anisfeld is a Research Scientist at the Yale School of Forestry & Environmental Studies in New Haven, CT.

Did you know?

Tidal wetlands, or salt marshes, are the transitional zone between the land and submerged systems. Healthy wetlands are important because they help trap sediments, store flood water, and reduce wave energy during storms. These areas also provide habitat for animals (Two-thirds of all marine species depend on tidal wetlands for a portion of their life cycle!).

Marsh drowning
at Sherwood Island State Park.



Shimon Anisfeld

Continued from page 1.

just one or two degrees Celsius could force cold-water organisms at the southern end of their biogeographic range to shift from LIS into more northern waters. Similarly, species to the south may extend their range into the Sound.

It is possible that range shifts have begun among some cold-water LIS native species, like winter flounder (*Pseudopleuronectes americanus*) and American lobster (*Homarus americanus*), as temperatures warm. Winter flounder abundance has declined significantly in southern New England waters, and although the reasons are unknown, they could relate to the negative effect of warmer winters on egg survival, and larval hatching and development. An alternative theory is that increasing temperature has shifted the food web away from bottom feeders like winter flounder to those that feed in the water column. American lobsters in LIS are also at the southern end of their inshore range. This population was devastated by disease in 1999; the outbreak triggered by several environmental factors driven by sustained, above-average water temperatures.

As cold-water species shift north, warm-water native species could become more abundant or even appear for the first time in LIS. For example, the blue crab (*Callinectes sapidus*) could increase in abundance if the temperature increase is sustained

long-term. Rising temperatures could also promote the establishment of new invasive species, such as the carnivorous veined rapa whelk (*Rapana venosa*), introduced into southern Chesapeake Bay 10-12 years ago. The invasive green alga (*Caulerpa taxifolia*) that has plagued the Mediterranean Sea and was recently eradicated from a southern California harbor, could survive in LIS if water temperatures continue to warm. Further, local researchers have demonstrated that unusual environmental conditions boost recruitment of non-native invasive ascidians (or sea squirts) in LIS, while adversely affecting native ascidians. These results suggest that changing maximum and minimum water temperatures rather than annual mean water temperatures may represent the greatest effect of climate change on biotic communities, by giving non-native species a head start in growth and recruitment over native species.

Balcom is an Extension Educator for Connecticut Sea Grant in the Department of Extension at the University of Connecticut.

Hey, Kids!!

Check out the Environmental Protection Agency's website at <http://epa.gov/climatechange/kids/index.html> for fun games, facts, and ways you can help keep our planet cool!

Storms and Climate Change in Long Island Sound

By Malcolm J. Bowman and Jay Tanski

Long Island Sound is typically exposed to two major types of storms; the winter nor'easter and the hurricane. Although hurricanes can be devastating to Long Island's coastal communities, it is the nor'easter that typically causes the most flooding and erosion damage. Nor'easters are large, low pressure systems that are formed over the North Atlantic Ocean during the winter months. Typically they last several days, but may persist as long as a week. Although winds associated with nor'easters are not as strong as those of hurricanes, nor'easters linger much longer and can cause more damage. A nor'easter storm may last through several high tides, leading to repeated opportunities for serious coastal flooding and erosion.

Hurricanes are a very different phenomenon than the nor'easter. They are generated in the tropical Atlantic Ocean during the hurricane season, which runs from late August through October in this area. The hurricane's heat engine, which fuels the formation, growth and the journey of the storm up the east coast, is derived from the warm surface waters of the Atlantic. Hurricanes grow and thrive only when they are traveling over the ocean. Once landfall occurs, they slowly diminish in fury and eventually dissipate.

Many people are concerned about the impact global climate change may have on storms in Long Island Sound. While evidence for global warming is strong, how this warming may impact other phenomena like storms is much less certain. Some research indicates that hurricanes may intensify due to higher sea surface temperatures that are associated with global warming; another recent study suggests that warming could actually reduce the strength of hurricanes likely to make landfall in the U.S. So, researchers are still seeking scientific consensus on how warming may affect the number of hurricanes. Unfortunately, even less is known about how climate change may influence nor'easters. Clearly, this is an area where more study is needed.

In the future, sea level rise may lead to increased flooding during storms. Sea level in the Sound has been rising at about one foot per century for the last 8,000 years or so. According to NASA predictions, sea level may rise two to three feet by the end of this century, due to warming and other factors. This increase is considerably less than the storm surges of eight feet or more experienced now and will occur over a much longer time frame, but this slow rise will eventually increase the frequency and extent of flooding due to storm surges in low lying areas around the Sound.

While the exact effect of climate change on storms remains uncertain, global warming will exacerbate problems we are already facing. The weather and climate will become more variable, which will make it more difficult to plan. To be prepared, we should focus on identifying the most vulnerable areas of our coast and developing appropriate hazard mitigation strategies based on a quantitative understanding of the forces acting on the shoreline and their specific impacts. Proper management may mean doing nothing in some areas (uninhabited or with exceptionally high erosion rates); in other areas the use of "soft engineering" techniques (such as beach nourishment) may be appropriate, in others "hard engineering" structures such as storm barriers may be warranted depending on the use and development of the shoreline and the physical processes operating there. Research and monitoring efforts should focus on climate change science in all its implications. This would include storm surge and coastal erosion, as well as shifting baselines in weather, ecology, water quality issues, coastal planning, building codes, commercial and residential construction practices and coastal protection structures.

Bowman is a Professor of Physical Oceanography at the Marine Sciences Research Center at Stony Brook University. Tanski is the Coastal Processes and Erosion Control Extension Specialist with New York Sea Grant.

Living the Green Dream

By Larissa Graham

Cassie Zito, a 16-year old from Hartford, Connecticut, believes that the best way to reduce the effects of climate change is to lead by example. At home, she and her family try their hardest to reduce their energy use and carbon emissions. They drive a car that runs on biodiesel fuel, shop locally for organic food, avoid bottled water, and use only reusable shopping bags. But, they wanted to do more. They wanted to show kids that it was easy to live the “Green Dream”!

Cassie and her family participated in the 2007 Cool It! The Climate Change Challenge, a competition which challenges students to learn about climate change and create real, local solutions to the problem. Their Cool It! goal was to visit 500 fifth and sixth graders across Connecticut and teach them the basic concepts of sustainability. After developing a Climate Change Solution Plan, the team has begun the 2nd Phase of their Cool It! Challenge- putting their Plan into action!

Over the next few months, the team will be sharing a theatrical performance called “Living the Green Dream” with students at schools throughout Connecticut. This production was inspired by the family’s adventures as they traveled across the country last summer, maintaining their “green” lifestyle while they visited sustainable businesses to talk about climate change. During their trip, they learned that families can have a great impact on the environment, especially when they focus making educated decisions about the “three C’s: carbon footprints, conscience consumerism, and conservation”.

In mid-April, the team will submit a report with the results of their project for a chance to win the \$10,000 2008 Cool Results Award. Until then, the team will continue to work towards their Cool It! Goal and encourage people to strive to live their own “Green Dream”.

On the web...

www.coolitchallenge.org
www.thegreenvibration.com

Learn more about the Cool It! Challenge and Living the Green Dream!

Sound Steps to Fight Climate Change

By Kyle Rabin and Gordian Raacke

Climate change is real and it is happening – possibly at an even faster pace than society realized. That was one of the critical points stressed at the 16th annual Long Island Sound Citizens Summit in 2006. Make no mistake, individual and family choices can have an impact on global climate change. At the local level, personal action will help preserve Long Island Sound habitats and their inhabitants, water quality, and fisheries. As the Union of Concerned Scientists (UCS) states, “reducing your family’s heat-trapping emissions does not mean forgoing modern conveniences; it means making smart choices and using energy-efficient products, which may require an additional investment up front, but often pay you back in energy savings within a couple of years.” Since Americans’ per capita emissions of heat-trapping gases is more than double the amount of western Europeans, UCS emphasizes that we can all make choices that will greatly reduce our families’ global warming impact.

Probably one of the most important climate change-mitigating decisions you can make relates to the car you drive. When you buy your next car, look for the one with the best fuel economy in its class. Each gallon of gas you use is responsible for about 25 pounds of heat-trapping gases in the atmosphere. Better gas mileage not only reduces global warming, but will also save you thousands of dollars at the pump over the life of the vehicle. Compare the fuel economy of the cars you’re considering and look for new technologies like hybrid engines.

Another important personal choice is where you buy the electricity that powers your home. Fossil fuel-fired electric power plants are the single largest source of heat-trapping gas and generate most of the electricity in the Northeast. Although we all rely on electricity, many states allow you to switch to electricity companies that provide up to 100 percent renewable energy. Other forms of alternative energy include installing on-site renewable energy systems such as photo-voltaic systems or small-scale wind power. Solar hot water systems also greatly reduce the amount of electricity or gas required to heat your water; cutting your fuel bills and benefiting the environment.

Because U.S. emissions of heat-trapping gases are so high, we have a unique responsibility and opportunity to reduce our carbon footprint. You and your family can help by taking personal action, encouraging community action, and influencing federal, state and local action.

You can help fight climate change!

See page 8.

Kimberly Graff



Congressional Member Profile: Steve Israel

Party: Democrat

District: NY's 2nd Congressional District

First elected: 2000

Now serving: 4th term in the House

Education: BA George Washington University

Birthplace: Brooklyn, NY



Photo courtesy of Israel's office

Congressman Israel

Q: What are the issues related to Long Island Sound (LIS) that most concern you?

A: Substantial population growth and development has polluted the Sound and destroyed many of its ecological treasures. Today, over 8 million people live in the Sound's watershed with 20 million people living within 50 miles of its shores. Yet, the natural wonders of Long Island Sound still remain an important part of our identity and way of life. We must fight for better water quality in the Sound while protecting land around the Sound so it remains accessible to everyone in our community. The Sound alone contributes \$6 billion to the regional economy through sport and commercial fishing, recreation and tourism. I believe it is important that we continue to preserve the Sound and work to clean up and restore this local treasure.

Q: How have you been supporting the protection of LIS?

A: As a member of the House Appropriations Committee, I secured \$5 million in Fiscal Year 2008 for Long Island Sound restoration programs. Since coming to Congress I have fought for more than \$40 million in funding for the restoration of Long Island Sound. I have also co-authored and passed the Long Island Sound Stewardship Act, which authorizes \$25 million per year for the protection of the Sound. The Stewardship Act sets out a voluntary process to identify, protect and enhance sites around the Sound in New York and Connecticut with ecological, educational and recreational value. Lastly, I have fought for and worked to pass a reauthorization of the Long Island Sound Restoration Act, which provides up to \$40 million annually over five years to clean up the Sound. These funds are used to help local communities repair their sewage treatment plants and decrease nitrogen levels in the Sound.

Q: Do you think LIS residents should be concerned about climate change?

A: Absolutely—climate change produces rising sea levels and impacts all of us on Long Island. It's crucial to engage residents in discussions on climate change and preservation of Long Island Sound. Recently, I held a series of bipartisan, bicoastal field hearings on the State of the Sound. But I believe we must not only conserve, but also innovate. That's why I have developed a Next Generation Energy Security Initiative. This landmark plan will limit greenhouse emissions, decrease our dependence on oil, and create American jobs in the renewable energy industry. It invests billions into research and development for renewable energies like geothermal, ocean, solar, wind, and biomass technologies. Most importantly, it ensures that the U.S. will become a world leader in the renewable energy industry.

Attention, Educators!

The Yale Peabody Museum has developed a new curriculum for environmental educators, called "Biodiversity and Global Change: Lobster Die-off!". This unit explores the effects that worldwide issues such as ocean warming, pollution, and invasive species have on Long Island Sound. A BioAction Kit, containing all the materials needed for experiments and lessons outlined in the curriculum, is also available for loan from the LISS office. Visit www.peabody.yale.edu/education/ed_curric or contact Larissa Graham at lfg85@cornell.edu or (631) 632-9216 for more information.

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“What Can I Do?”

Simple ways you can help reduce climate change

By Kyle Rabin and Gordian Raacke

(and save some money, too!)

1 Purchase Energy Star products. When replacing appliances, look for the EPA’s Energy Star label on new appliances (refrigerators, freezers, furnaces, air conditioners, and water heaters use the most energy).

2 Unplug a freezer. One of the quickest ways to reduce your global warming impact is to unplug the extra refrigerator or freezer you rarely use (except when you need it for holidays and parties). This can reduce the typical family’s carbon dioxide emissions by nearly 10 percent.

3 Get a home energy audit. Take advantage of the home energy audits offered by many utilities. Simple measures, such as installing a programmable thermostat to replace your old dial unit or sealing and insulating heating and cooling ducts, can each reduce a typical family’s carbon dioxide emissions by about 5 percent.

4 Light bulbs matter. Replace your incandescent bulbs with more efficient compact fluorescents. If every household in the United States replaced one regular light bulb with an energy-saving model, we could reduce global warming pollution by more than 90 billion pounds over the life of the bulbs; the same as taking 6.3 million cars off the road! **[Note: Some bulbs contain a small amount of mercury, so check with your Public Works Department for proper disposal!]**

5 Think before you drive. Whenever possible, walk, bike, join a carpool or take mass transit. If you own more than one vehicle, use the less fuel-efficient one only when you can fill it with passengers. Driving a full minivan may be kinder to the environment than two midsize cars.

6 Recycle. Make sure you are recycling cans, bottles, and paper; and buy recycled materials whenever possible! Did you know it takes 75% less energy to make steel products from recycled steel than from scratch?

7 Buy good wood. When buying wood products, check for labels that indicate the source of the timber. Supporting forests that are managed in a sustainable fashion makes sense for biodiversity, and for the climate too. Forests that are well managed are more likely to store carbon effectively because more trees are left standing and carbon-storing soils are less disturbed.

8 Plant a tree. Get a group in your neighborhood together and contact your local arborist or urban forester about planting trees on private property and public land. In addition to storing carbon, trees planted in and around urban areas and residences can provide much-needed shade in the summer, reducing energy bills and fossil fuel use.

9 Let policymakers know you are concerned about global warming.

Our elected officials and business leaders need to hear from concerned citizens.

SOURCES: http://www.ucsusa.org/global_warming/solutions/ and www.cleanair-coolplanet.org/action/solutions.php.

Sign up for Sound BYTES!

The Long Island Sound Study is now producing Sound BYTES, an electronic newsletter that highlights upcoming events and current projects. Sign up for Sound BYTES under the heading “E-newsletter” on our website at: www.longislandsoundstudy.net.

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