Because of differences in Email programs, the links above and "back to top" links below may not work. **Chair's Corner** by Bob Heinemann

Transitions...

It has been my privilege to be Chair of the Executive Committee for the past two years, a group of dedicated volunteers working to improve the environment of the Hudson Valley. We are stronger and more inclusive when we share responsibility and rotate positions of leadership. Officers and Committee Chair positions are appointed annually, and Executive Board members are elected to three year terms. These positions are

renewable in the absence of term limits in the Bylaws. I strongly believe in rotating leadership positions to promote a more active membership and inject new ideas and energy into our collective effort to improve and protect our local environment for the health and enjoyment of future generations. To that end, I am voluntarily stepping down

as Chair of Mid-Hudson on January 7, 2020.

My current term on the Executive Committee runs through the end of 2020, so I will remain active and engaged for at least another year as a Board member. A far more important and urgent transition, however, is the overdue and necessary political and public effort to transition from oil, gas and coal with their destructive effects of climate change in our region, throughout New York, and worldwide. We must start locally in each community, and we must collectively support New York State in its legislative commitment through the Climate Leadership and Community Protection Act (CLCPA). Legislation is only the first, necessary step. Follow through by our elected representatives and every energy user is critical to make the goal a reality. The task before us is enormous. The CLCPA requires New York to provide 70 percent of its electricity from renewable resources by 2030, have a 100 percent carbon-free electric sector by 2040, and 85 percent greenhouse gas emission reductions by 2040. And yet,

even within a two percent upward range. A next, and absolutely necessary step, is to increase the staff of the Department of legislative session in Albany by our New York legislators. DEC has suffered staff

these goals are truly the minimal ones required to keep global temperature warming

Environmental Protection (DEC) by funding a significant budget increase in the 2020 reductions over the past ten years, and has difficulty adequately monitoring environmental issues at these reduced levels. If the mandatory requirements of the CLCPA are to be met, additional dedicated DEC staff need to be hired, trained and tasked with meeting the goals of the legislation passed this year. The true commitment of our elected representatives will be measured in 2020 by whether they pass the necessary budget increase for DEC.

Here are a few of the challenges that must be met and ameliorated. The private transportation sector needs to move toward green energy. More than one-third of New York's climate emissions are caused by transportation, with three-quarters of that directly coming from private on-road vehicles, most of which are everyday passenger vehicles. So, clearly the practical ability to transition to carbon-free electric vehicles (EV passenger cars) must be encouraged and made easier. Two obvious ways to do this are significant sales tax reductions on the purchase of new EV's, along with an increase in

NYS EV rebates; and an urgent and widespread expansion of high speed charging stations on all primary and secondary highways throughout New York State. In addition, local municipalities need even greater economic assistance from NYS to fund their own efforts to replace older buses, emergency vehicles and cars with EV's; and to add charging stations to public parking lots, recreational areas, parking near local government buildings and courts which have a high volume of public visitors. Another urgent transition from the continued dependence on fossil fuels is a total cap on all new or refurbished oil and gas infrastructure. Every dollar spent to add more pipelines or re-power old coal, oil or gas plants is a step backwards when every cost from

of energy. As you will read in the Energy article below, Mid-Hudson continues to oppose all backward energy steps nearby including the misguided effort to re-power the Danskammer plant with gas, and to run new power lines from Canada directly to NYC via the Champlain-Hudson Power Express (CHPE), which mindlessly will carry direct current instead of alternate current transmission lines and prevent local generation along its route to supply renewable energy to local consumers. Transition to green energy is far from easy, but it also is not rocket science. What is needed is both practical and doable. It requires political willpower and resolve to achieve it. We all need to actively engage with our political representatives to hold their feet to the climate change fires so that they continue to walk the path to clean, renewable

energy within the timeframe set out in the CLCPA, and not just talk about it. back to top **Conservation Corner** Bluestone Wild Forest, Onteora Lake get a Temporary Reprieve by Marie Caruso This past August 29, the Town of Kingston Planning Board, after enormous public pressure, rescinded the negative declaration they issued last March for the concrete slab and steel plant known as 850 Route 28 LLC, proposed to be built on a private inholding within the Bluestone Wild Forest, one quarter mile from Onteora Lake.

The resolution recognizes that new information received from the public indicates that the project may have significant adverse environmental impacts that require a second look, and that the Kingston Town Board must also be included as an Involved Agency in the project review, due to their consideration of a zoning change which would allow the

This does not mean, however, that the Planning Board, which is the Lead Agency, is

project to proceed.

by Nancy Severns

and pollinators.

Readings:

requiring the applicant to file an environmental impact statement or undergo a full SEQRA review. At this writing, the Board is still waiting for the applicant's response and any proposals to mitigate the many adverse impacts outlined in the public comments submitted during several public hearings this past spring and summer. This project, with its blasting, mining, clearing of trees, and heavy truck traffic (as described in our summer newsletter article) in the midst of the Bluestone Wild Forest should certainly merit a full environmental review. Such is the position taken by both the Mid-Hudson Group and the Atlantic Chapter of the Sierra Club as well as other environmental organizations, and reiterated in strongly-worded letters from lawyers representing the Open Space Institute, Catskill Mountainkeeper, and the Woodstock Land Conservancy. The two latter groups have been particularly active in raising public awareness around this issue, and are urging the public to keep up the pressure on the Town of Kingston

Planning Board to require a comprehensive environmental review of this project. There's also an active group of concerned local citizens, known as the Bluestone Wild Forest

Citizens Group, who meet regularly to strategize ways to make that happen.

woodstocklandconservancy.org and the Bluestone Forest Facebook page.

A Proposal for Homegrown National Parks

For regular updates on this issue, sign up for emails from the Woodstock Land Conservancy at maxanne.wlc@gmail.com and/or the Bluestone Wild Forest Citizens Group at bluestoneforest@gmail.com. Updates can also be found on the web at

symposium. Doug Tallamy, a professor at the University of Delaware and author of several books and many articles spoke on "Helping Migrants Justify their Migration". Professor Tallamy addressed the special relationship between migrants, primarily birds and butterflies, and the food sources which they seek. In his books, *Bringing Nature Home* and *The Living Landscape*, Tallamy explains the importance of leaf litter. Mowed turf contributes little or nothing to the cover, shelter, and sustenance necessary to sustain wildlife. We now have 40 million acres of lawn in the United States and we are adding more each year. He proposes a new sort of national park composed of the spaces in which we live, work, and play—our lawns. Setting aside the space you need for picnics and games, the idea is to devote your lawn to becoming

There are many benefits to creating these park-like communities of three-dimensional native plantings including sequestering carbon, managing water, and encouraging birds

One immediate way to foster the food web is to allow leaf litter. In other words, let leaves lie where they fall as they would in a forest. Most trees and shrubs along with

Rick Darke & Doug Tallamy, The Living Landscape, Timber Press, Portland Oregon,

Plant/Insect Linkages in Designed Landscapes, Hortechnology, August 2017 27(4).

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Douglas Tallamy, Bringing Nature Home, Timber Press, Portland Oregon, 2017. Douglas W. Tallamy, Creating Living Landscapes: Why we need to Increase

Berkshire Botanical Garden recently hosted "Rooted in Place", an ecological gardening

by the New York State Legislature is an indication of how important these races are. Since 2018, a number of bills have been passed: the Climate Leadership and Community Protection Act, the ban on offshore oil and gas development in NY waters, the single-use plastic bags ban, the food waste bill that allows the donation of excess food and recycling of food scraps, the chlorpyrifos ban, the 1,4-dioxane ban, and the renewables law dealing with the maintenance and continued viability of the state's existing large-scale, renewable energy resources - to name just a few. We need to continue and grow this

momentum, particularly in a time when so many profound environmental questions are

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No doubt that you have heard about renewable energy technologies such as wind and solar electricity generation that hold the promise to provide a clean energy future. Because they do not rely on burning fossil fuels, which have long lay buried underground with their carbon stored away, these ever-renewing energy sources will help reduce the amount of carbon dioxide released into the atmosphere, which is at the root of our climate crisis. As sea levels rise with polar ice sheet melting and global temperature increasing, storms become ever more destructive, the weather ever more extreme and erratic, scientific reports ever more dire, and young people protest the future world being left them, more people are realizing that we are being challenged with a truly

Changes will have to be made to our lifestyles involving how we get around, what we eat,

how food is farmed, and how we power our machines. Renewable energy projects continue to multiply and their electricity costs decrease, producing market forces that render coal production non-competitive. Murray Energy Holdings Company, a large coal producer, recently filed for bankruptcy. Although coal powered the Industrial Revolution with many positive consequences, it has also left us a legacy of environmental and health

Natural gas, though somewhat cleaner burning in the sense of toxics, has too many associated problems: the methane that abundantly leaks from its infrastructure is a much more potent greenhouse gas; the fracking process to mine the gas pollutes aguifers; and plenty of CO2 enters our atmosphere as we burn it. As a result, some

arm of a French utility company) that is setting up a 177 Megawatt solar farm (very large — could power ~38,000 homes) in Mount Morris, NY in Livingston County. Distributed over several tracts of land totaling almost 1000 acres, acreage not suitable for agriculture, the solar farm will benefit the town, county and school districts through revenue (roughly \$500,000 annually) and construction jobs. In addition, sheep grazing and pollinator foraging (apiculture) will still be possible on the property, as evidenced by a similar project (Arnprior) by the company in Canada.

Here are two interesting statistics from the EDF Renewables talk:

The Spread of Renewables in North America

robust pipeline / continuous **GROWTH**

24 GW

Total Supply of Fossil Fuels & Uranium

the Town of Newburgh.

170 Years

It has been idle after burning coal for many years. Bringing it back on line by burning gas would require more gas infrastructure to be built, with all the problems mentioned above, as well as encouraging more gas-burning installations to come into being once the pipelines are in place. Moreover, the plant is vulnerable to a rising river level, making it very risky and dangerous; the Hudson River rise is considered inevitable with the climate crisis (so much so that the Army Corps of Engineers has started drawing up multi-billion dollar projects in an attempt to avoid its worst effects). Danskammer has caused enough environmental damage in its coal-burning days; let us not re-open that wound. Second, the Champlain-Hudson Power Express (CHPE) is gaining vigor with the endorsement of Mayor DeBlasio of NYC. This power line would directly connect hydropower from Quebec down to the NYC area; it would carry direct current (rather than use the usual alternate current transmission). Because it is DC (Direct Current), local generation along its route could not tap into it to supply renewable energy to market, a situation which discourages renewable energy project development. The new line could potentially do a great deal of environmental damage as it is built; it plans to

run lines under the Hudson River, which could churn up much contamination.

feed lower New York State the electricity it needs..

policy that moves us backwards in the energy and health sector.

CHPE may encourage more dam building in Quebec, furthering the damage. In addition, this power comes from outside NYS, when our leaders should be encouraging more local, renewable energy development. There are other less-damaging power line proposals to

Please be aware of these issues, and let your legislators know that you do not support

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Closer to Home, Two Potential Setbacks Loom on the Energy Front

First, there is a plan being put forward to re-power the **Danskammer power plant** with gas. The Danskammer installation sits right on the banks of the Hudson River, in

Goldfarb travels all over the US and into Great Britain to talk with people about their interest in reestablishing beavers and to learn about how these efforts are going. For those who attended our Mid-Hudson Group member party last spring at the Vassar Farm and Ecological Preserve, you will be happy to hear that beavers have made the preserve their home over the past five years or so. During the past few years I have spent time there observing the beavers along with muskrats, mink, bobcat, great horned owls, barred owls, great blue herons, green herons, wood ducks, kingfishers, a variety of woodpeckers (including a recent sighting

place to explore along with other places in our area where beavers have made a

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Editor's note: We are pleased to introduce this new Member Letters section to our quarterly newsletter. Send us letters about issues that are important to you—whether local, state or national. Please submit your letter to our Newsletter Editor: Andy Moss, at and@hvi.net. Our

submission schedule is posted at the bottom of our website's Newsletters page. We will consider letters of up to 250 words. Your letter will be published in the next newsletter upon review and acceptance by the editor. Subjects should focus on Sierra Club areas of interest: conservation, environmental protection, political action, climate change, getting outdoors, etc. Visit the Sierra Club, Atlantic Chapter, or Mid-Hudson Group website to learn more about

This book is a pleasure for naturalists and travelers. Ben Goldfarb has a deep

appreciation for our land. He beautifully describes the beavers and their world along with the great variety of birds and wildlife that thrive in the habitat created when beavers are allowed to engineer their surroundings. Examples given of other species which thrive with the help of beavers include trumpeter swans and boreal toads. Ben

considered the most beautiful calendars in

did not deter us from having fun socializing with our fellow Sierrans. Kudos to all who were involved!

the world. The calendars are available at Barner Books in New Paltz (3 Church Street), or they can be ordered by calling 845-255-2635 and shipped to any address you wish (shipping is \$5 per address). The calendars make beautiful gifts for friends, family or even yourself! We sell out every year, so pick yours up today! The mid-Hudson Group benefits from your purchase.

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Visit our Facebook Page Visit our Meetup website for Programs and Outings

Contact us: Email:midhudsonsierra@twc.com Mail: Mid-Hudson Sierra Club, PO Box 1012, Poughkeepsie, NY 12602

You can find the names of our Executive Committee members on our website: Go to our Contact page

If you no longer wish to receive our Newsletter by email you can unsubscribe by sending an email request to Dave Thomas at dave@davidalexanderthomas.com.

now onward must be put toward a new reliance on wind, solar and geothermal sources

some perennial herbs will grow well under natural leaf fall. The leaf layer depth can be managed for more delicate plants. Undisturbed soil and leaf litter mean more moths. Moths in their caterpillar stage are a key food source for birds. When allowing them to lie is not an option, second best is to mow them and create a finer mulch or to compost them. So, if you've procrastinated on raking leaves, let them lie, and look for more ways to

create an ecological habitat.

Political Corner by *Alison White*

Close Races in 2019 Elections

an ecological service area supporting wildlife.

absentee ballots to count. As of November 25, Klegg led Kavanaugh by 118 votes, with about 300 absentee ballots left to count, and at least 200 challenges in the hands of a judge. In the 23-member Ulster County Legislature, three districts were closely fought: In District 1 (Saugerties), Conservative incumbent Mary Wawro led by just 37 votes over Democratic challenger Aaron Levine on November 6. After counting the absentee ballots, the race may be headed to a mandated

2. In District 4, which comprises parts of the towns of Ulster and Kingston, Democrat Brian Cahill was ahead of Republican Andi Turco-Levin by 26 votes after election day, with that lead increasing to 53 votes after absentee

3. In District 22 (Olive, Shandaken, Denning, Hardenburgh), former Legislator John Parete, who ran on the GOP line even though he is a Democrat, held a 43-vote lead over incumbent Democrat Kathy Nolan, which narrowed to 21

Whether these races are an indication of an energized progressive voter population, and whether they predict results in the coming year's elections remains to be seen. But the coming year will certainly see Mid-Hudson Sierra Club Group endorsing and working to help elect progressive candidates who support Sierra Club goals: addressing climate change and greenhouse gas emissions, protecting the Hudson River, and supporting a

Although the national races will draw a lot of attention, keep in mind that the races for New York State Senate and Legislature will also take place. The good work accomplished

recount after Wawro came out only 12 votes ahead.

votes after absentee ballots were counted.

rapid transition from fossil fuels to renewable energy.

Energy Corner by *Nivo Rovedo*

momentous threat.

devastation. We need to change.

neutral energy sources."

breakthrough could store solar power for decades".

development are needed.

is applied.

Our Energy Future: Gloom, Hope, or ... ho hum?

ballots were counted.

forward-thinking California municipalities are now banning new homes from using gas for cooking and heating. The following quote is from a story by Elizabeth Weise which was published on November 10, 2019 in USA Today. "... people in 13 cities and one county in California that have enacted new zoning codes encouraging or requiring all-electric new construction. The codes, most of them passed since June, are meant to keep builders from running natural gas lines to new homes and apartments, with an eye

toward creating fewer legacy gas hookups as the nation shifts to carbon-

This trend would put even more emphasis on the need for clean, renewable electrical power. The drawback of solar and wind energy is intermittency: no sun at night and periods of low wind. Hence some method for storing the excess energy generated by wind and solar, so it can be released when they do not keep up with demand, is needed. Although many innovative ideas have come forward, efficiency and costs are issues. Industrial size lithium ion battery installations have been the main response, but they struggle to meet our demands in terms of capacity and efficiency. More research and

On the topic of energy storage, a recent article in Bloomberg caught my eye: "An energy

The subject is a new chemical touted as a solar energy breakthrough, not for electrical generation, but for thermal storage. "The innovations include an energy-trapping molecule, a storage system that promises to outperform traditional batteries, at least when it comes to heating, and an energy-storing laminate coating that can be applied to windows and textiles." The molecule is composed of hydrogen, carbon and nitrogen; it can store the energy in sunlight for over 10 years, until released as heat when a catalyst

Further work is on-going, but the Swedish team that developed it has already created a

transparent coating using it that can be applied to home windows, a moving vehicle, or even clothing. The coating collects solar energy and releases heat, reducing electricity required for heating spaces, which reduces carbon emissions. But it is not yet known if this can be applied to electrical generation. The coating may be available in 3 years, while the storage system could be commercial in 6 years. Too little, too late? Maybe. But this sort of innovation and learning may be able to spark related ideas and advancements. This kind of work must be supported and encouraged if we can hope to survive the climate catastrophe with some of our way of life intact. That we must continue to quickly make progress on weaning off fossil fuels is brought home in an article in The New York Times on November 13 which deals with a report released the day before by the International Energy Agency warning that current policies could cause greenhouse gas emissions to continue rising for the next 20 years. It is

noted that "wind turbines, solar panels and electric vehicles spread far more quickly last year than many predictions, but not fast enough to get global warming under control."

As an encouraging example of the spread of renewables, our Atlantic Chapter's energy committee had a very upbeat presentation from EDF Renewables (the renewable energy

Wind of development across Solar North America (as of 12/2018) Wind / Solar Offshore Wind / Solar Offshore Wind as of 12/31/18 eDF Solar Energy Abundance Compared to Other Energy Sources Solar Energy – An Abundant Resource Global consumption of energy is

Annual

Solar Energy On Earth

equivalent to approximately one hour of convertible solar energy

·In the medium to long-term, our to innovate

prudent business models to harness the earth's solar resource will become the foundation of global electricity supply markets.

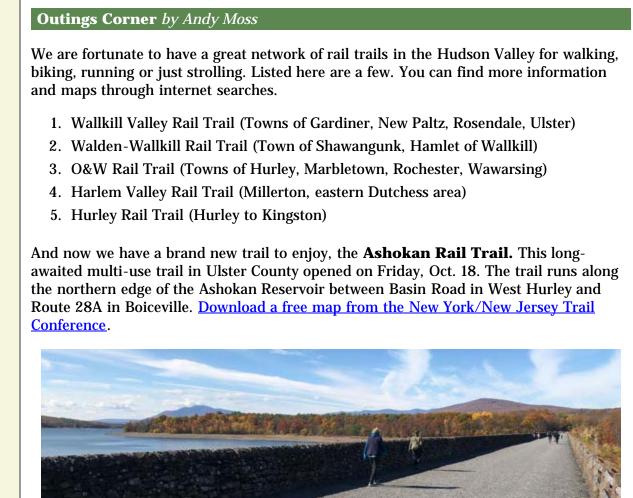
·Solar PV will drive the world's long-term plan for reliable, sustainable electricity solutions.

Source: US Solar Energy Industry Association, AGM, 2009

and implement

falling on the earth.

technologies



Proposed in 2012, the Ashokan Rail Trail is 10 to 12 feet in width and surfaced with a compacted crushed stone surface that is accessible for persons with disabilities and limited mobility. Open to the public dawn-to-dusk, year-round for non-motorized uses, including hiking, bicycling, running, nature observation, cross-country skiing, and snowshoeing. The ART will provide the first public access to the incredibly scenic northern shores of the Ashokan Reservoir without a special New York City Department of Environmental Protection (DEP) access permit in more than a century. The first 9 miles of the trail are open now, with the full 11.5 miles opening by the end of this year.

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Eager: The Surprising, Secret Life of Beavers and Why They Matter

bogs and small ponds across the landscape. Streams meander along as new dams are

The aesthetics of our landscapes are just one of the things which influence animus

toward beavers. Other concerns crop up when a road is flooded or a culvert is blocked by the work of a busy beaver. Ranchers in the west want to use land to graze their cattle, and when the land is decimated by overgrazing the beavers are forced to move on.

Book Review by Sarah Kennedy

many areas around the country.

This book is an engaging read and a revelation. I had no idea that beavers are a keystone species, every bit as important to our landscape and ecology as wolves. Like wolves, they were hunted nearly to extinction. They are now being championed by people and reintroduced in

The book explores the history of beavers across this continent and how things might have looked before they were nearly totally wiped out for the fur trade by about 1840. Our romantic notion of what a healthy stream looks like—think of a fly fisherman standing in a clear, fastrunning stream—is not how things look where beavers

When there is a healthy population of beavers, the flow of a stream is interrupted and there are many wetlands,

built and old ponds fill in and eventually become meadows.

The book explores the many ways that beavers enrich our ecology, fill our aquifers, and can even combat climate change. Given these benefits, some people become "beaver believers," taking the lead in educating others and working to reintroduce and protect beavers. Others find ways to allow humans and beavers to coexist. In doing so they may become engineers themselves by

constructing Beaver Deceivers which can be elaborate yet generally affordable devices which allow water to flow so beaver ponds do not rise to a height that endangers roads or property. Or some may build Beaver Dam Analogues which are good approximations of beaver dams built to entice beavers to settle down in particular areas. When educated about the benefits of beavers and the ways people can coexist with them, people warm to the idea, sometimes eventually becoming downright enthusiastic.

of a redheaded woodpecker), and

Letters from our Members

comeback.

where we stand.

Defend the Clean Air Act

numerous songbirds nesting along the trail and enjoying the pond and wetlands. I have not seen evidence of beavers there recently and wonder whether they have dispersed further along the stream. Left behind is their intact dam, lodge and rather large beaver pond. It is a special

by Ben Goldfarb

are well established.

Jeanne Henderson **Support Our Local Food Bank**

2020 SIERRA CLUB CALENDARS Sierra Club 2020 Calendars are now available. Priced at \$14.00 (discounted) each you can choose from the Wilderness Wall Calendar which features a full page image for each month or the **Engagement Calendar** which features a full page picture for each week

of the year and room for

notations/appointments. They are often

Make A Gift - Make A Difference Our local group depends on the support of volunteers and the generosity of our membership. The work of the group takes Sierra Club volunteer effort, and of course funds. We hope that you will consider making a gift to the Mid-Hudson group of the Sierra Club. In these turbulent times it's vital that we all do what we can to speak out and work for the protection of our environment and the future of our world. We welcome and appreciate your support, and encourage you to consider providing financial support for our efforts. Our mailing address is at the bottom of this newsletter. To speak about specific opportunities, or with any questions, please contact David Friedman, Friedman_David@msn.com or our Treasurer Ralph Pollard, ralphpollard@verizon.net. <u>Visit our Mid-Hudson Group Website</u>

In July 2019, Ford, Honda, Volkswagen and BMW sided with California to uphold the clean air act of 1970 which called for strict pollution standards and fuel economy, In October 2019, GM, Toyota, Subaru and Fiat-Chrysler sided with the Trump administration on weakening those standards. I currently own a 2019, V6 Jeep Cherokee that runs at 34 mpg on the highway and no way want to go back to 23 mpg! I called my local dealership to complain. I stressed that my next car doesn't have to be one of theirs; not just for the planet but I don't need to pay more for gas. I know local dealers aren't in control, but they do care about their sales and attend regional conferences. If enough of us voice our displeasure, maybe it will resonate upward. I encourage my fellow Sierrans to make their voices and pocketbooks reflect our values. I personally don't have any social media accounts but for those that do, feel free to add your voice there as well. I co-manage a food pantry in downtown Poughkeepsie at St. Paul's Church. We have been selected as the charity for the month of November by the *Stop-and-Shop* grocery store on Burnett Blvd. in Poughkeepsie. For every reusable shopping bag purchased at the store, \$1.00 will be donated to our pantry. The plastic bag ban is coming soon [March 1, 2020] and we are actively trying to educate our clients as well as the community at large to purchase reusable bags. So, if you plan on purchasing reusable bags yourself, please try to get them at the Burnett store and help out our pantry at the same time. Thanks, Jeanne Henderson **Fundraising** by David Friedman Presented by Marie Caruso and Joanne Steele **KUDOS to the TAG SALE VOLUNTEERS** The weather again dawned clear and sunny for our drop-off and tag sale days on September 20th and 21st at Paula's Public House in Poughkeepsie. Despite the fine weather and nice assortment of donations, customers and sales were, once again, somewhat sparse this year. At the end of the day we gave our leftovers away to other worthy causes, thus keeping a lot of good stuff out of the trash stream. We're grateful to Paula's Public House for the use of their site, the Beacon Sloop Club for the use of their tables, to all those who donated items for the sale and, especially, to the wonderful cadre of volunteers (18 in all!) who performed myriad chores before, during, and after the sale. The heavy workload, however,