Sprouts, spinach, and salad greens aren’t the only things growing under the greenhouse glass at a place called Growing Power on Milwaukee’s north side. Tilapia and yellow perch swim under the same roof as the tomatoes at this innovative nonprofit organization.

Growing Power is on the cutting edge of an urban agriculture movement. Will Allen, chief executive officer, founded the organization 16 years ago and is sharing his knowledge and enthusiasm with groups across the nation and the world.

“Everyone wants this system,” said Allen. “People need food now and we can’t wait years for it to happen.”

Allen, who grew up on a farm in Maryland, started the Milwaukee operation by growing vegetable crops on his plot of land and in greenhouses in the city. He also raised tilapia, a fast-growing warmwater fish in three, 55-gallon drums. Over the years, Allen became interested in developing a system in which plants and fish could help support each other, reducing the need and costs for water, fertilizers, and chemical treatments.

At the nearby UW Great Lakes WATER Institute, Fred Binkowski became intrigued with Allen’s aquaculture operation. Binkowski, Wisconsin Sea Grant’s aquaculture outreach specialist, wondered if yellow perch could be raised in such a system. The first collaboration
programpeoplenews

We’re pleased to announce that Mary Stanosz has joined the Aquatic Sciences Center as an administrative assistant. Stanosz takes over for Patrick Sweeney who, after 18 months at ASC, moved on to a new position more closely related to his area of expertise.

Wisconsin’s Water Library (http://aqua.wisc.edu/waterlibrary) won the 2008 Wisconsin Library Association Media and Technology Section’s Webbies award in the “Most Accessible Web Site” category. Congratulations to the ASC staff who teamed up to create the site—Librarian Anne Moser, Web Developer Tom Dellingler and Art Director Tina Yao.

The Wisconsin Section of the American Water Resources Association (AWRA) recently presented its Distinguished Service Award to ASC Assistant Director for Research and Outreach Jim Hurley. The award is presented at the annual meeting to an individual who has made exceptional contributions to education in water resources, significant scientific contributions towards improving the water resources of Wisconsin, and dedicated service to the AWRA organization.

Remembering Phil Keillor

With deepest sorrow we note the passing of Phil Keillor, Wisconsin Sea Grant’s coastal engineering specialist for nearly 30 years. Keillor died Feb. 27 of injuries sustained while ice skating with his daughter and granddaughter. He was 71.

During his three decades with Wisconsin Sea Grant, Keillor earned a national reputation for the technical assistance, guidance, and educational services he provided to coastal communities along Wisconsin’s shores, throughout the Great Lakes, and beyond. Along the way, he deeply impressed colleagues and co-workers with his competence, his integrity, and his respect for everyone he encountered, on the job and off.

Keillor was the only coastal engineer in the Great Lakes states during his career, and one of very few such specialists in the country. If you struggled with any of the challenges that arise from living or working along the coast, Phil was ready to help. Over the years, his work protected coastal infrastructure from the onslaughts of howling winds, pounding waves, eroding sand and soil, and collapsing bluffs. Yet he also helped protect many miles of natural Great Lakes shoreline from the relentless pressures of development. Phil warned swimmers about rip currents when few people realized they exist in the Great Lakes. He helped coastal communities and government agencies wrestle with the technical and economic challenges of dredging harbors and cleaning up contaminated sediments.

But Phil brought far more than wide-ranging knowledge and competence to his work. As many city and county planners, other government officials, and home and business owners who have attested, he approached every problem, every project, every phone call with remarkable thoughtfulness and care. His research was always thorough, his advice was always well-reasoned, his commitment unfailing.

To those who knew Phil professionally, it came as no surprise that he remained very active after his retirement in 2003, informing the Great Lakes community about climate change and serving on the board of the Great Lakes Observing System.

The reflections and reminiscences offered here are a modest tribute to an inspiring friend and colleague who left us too soon. —JK

“I worked with Phil on many Great Lakes issues. His positive influence on coastal communities is immeasurable. More than anything, I will miss Phil as a friend. I cannot think of a person who did not enjoy just being around him. He was thoughtful, kind, spiritual, humorous, and sometimes a little mischievous. He will always be remembered as a man of true integrity, professionalism, and kindness.” —Anders Andren, director, UW Sea Grant

“I worked with Phil for over 25 years. He was our primary source of information on shoreline erosion and protection measures, and he was critical in getting shoreline protection and preservation factored into land use decisions in the area. We were lucky to have him, and he will be missed.” —Robert Biebel, chief environmental engineer, Southeastern Wisconsin Regional Planning Commission

“Phil was a mentor for me for 20 years. He was a huge resource for information, and he always had a clear, thorough way of thinking. He helped you understand things, never made a decision for you. When you asked him about a problem, he’d look at you with that twinkle in his eye, and then out would come this guidance, this wise counsel, that would make perfect sense.” —Gene Clark, coastal engineering specialist, UW Sea Grant

“Personally, I think about what a principled man he was. He wanted to do things the right way for people. If Phil offered an opinion, it was well thought out. And he always wanted to be constructive. In my time here, I’ve really tried to emulate him.” —Mike Fris, director, Wisconsin Coastal Management Program

“I already miss Phil’s thoughtful pauses and occasional mischievous grin. Phil taught me valuable lessons about public service, and I saw firsthand how much effort Phil put into every request for technical assistance he received. He was such a great role model for public service.” —David Hart, geographic information systems specialist, UW Sea Grant

“It was a true honor to present Phil with the William Q. Wick Award for Visionary Career Leadership through Programming on behalf of the Assembly of Sea Grant Extension Program Leaders in 2004. I remember Phil telling me before the banquet that he thought it was odd to give someone an award for simply doing their job. But the people he worked with thought he did so much more.” —James Hurley, assistant director for research and outreach, UW Sea Grant

Anders Andren, director
UW Sea Grant
Rain Gardens Reading List

April showers bring rain gardens! Plant a rain garden for your May flowers and prevent potentially polluted runoff from going down a storm sewer. Rain gardens capture runoff in a shallow depression planted with water-tolerant vegetation that absorbs and filters the water as it seeps into the ground. This recharges local groundwater supplies and helps protect the water quality of our lakes and streams. To learn how to start, check out the following titles from Wisconsin’s Water Library.

RAIN GARDENS: MANAGING WATER SUSTAINABLY IN THE GARDEN AND DESIGNED LANDSCAPE
By Nigel Dunnett and Andy Clayden. Portland, Oregon: Timber Press, 2007. Rain gardens can be used to capture, channel, divert, and make the most of the rain and snow that fall on a property. Using the innovative and attractive approaches described here, it is possible to enhance outdoor spaces and minimize the damaging effects of drought, stormwater runoff, and other environmental challenges.

RAIN GARDENS: A HOW-TO MANUAL FOR HOMEOWNERS
By Roger Bannerman. Madison, Wisconsin: Wisconsin Dept. of Natural Resources, 2003. This manual provides homeowners and landscape professionals with the information needed to design and build rain gardens on residential lots or even roof runoff at commercial and institutional sites. However, they are not appropriate for parking lots, busy streets, and other heavily used paved areas.

RAIN GARDENS: A HOUSEHOLD WAY TO IMPROVE WATER QUALITY IN YOUR COMMUNITY

DESIGN GUIDELINES FOR STORMWATER BIORETENTION FACILITIES
By Dustin Atchinson, Ken Potter, and Linda Severson. Madison, Wisconsin: UW Water Resources Institute, 2006. This publication provides guidelines and presents a numerical model that can be used for designing bioretention facilities to meet a specified objective, such as maintaining recharge volumes.

WATER GARDENS
By Susan Lang, T. Jeff Williams, and the editors of Sunset Books. Menlo Park, California: Sunset Books, 2004. From planning and designing a water feature to basic construction techniques and installing wiring and lights, this lushly photographed volume covers everything needed to create and maintain the inviting sights and sounds of water gardens.

THE BLUE THUMB GUIDE TO RAIN GARDENS

THE RAIN GARDEN PLANNER
By Terry Wallace. Atglen, Pennsylvania: Schiffer Publishing Ltd., 2008. Rain gardens to suit any style or size of property are within anyone’s reach with this clear and detailed guide to creating a beautiful and enjoyable home garden while preserving the natural environment.

More than 100 Students Compete in Lake Sturgeon Bowl

After a day of intense competition, the Marshfield High School team (top photo) won the varsity division of the Seventh Annual Lake Sturgeon Bowl, Wisconsin’s regional competition of the National Ocean Sciences Bowl, on February 21 at UW-Milwaukee. More than 100 students competed in teams from around the state.

The championship team won an all-expenses-paid trip to Washington, D.C., in April to attend the National Ocean Sciences Bowl competition, as well as several days of related field excursions in the Norfolk, Virginia, area.

Milwaukee’s Inland Seas School of Expeditionary Learning took first place in the junior varsity division, winning the opportunity to be research assistants during a one-day scientific voyage on the UW-Milwaukee research vessel Neesky. The team will collect data as part of a research project led by Carmen Aguilar and Russell Cubell of the Great Lakes WATER Institute at UW-Milwaukee.

The UW Sea Grant Institute is one of the financial sponsors of the Lake Sturgeon Bowl.
these products, the project may expand to include overviews of current conditions, information on features of the Great Lakes by bringing together overviews of winds, waves, and prevailing weather for more than 200 Great Lakes harbors. The project is designed to enhance commercial and recreational navigation on the Great Lakes by bringing together overviews of current conditions, information on features of the Great Lakes by bringing together overviews of winds, waves, and prevailing weather for more than 200 Great Lakes harbors. The project is designed to enhance commercial and recreational navigation before pumping it up to the potted plants. The gravel middle layer allows bacteria to convert the ammonia to less-toxic nitrates, and water-cress provides secondary filtration at this level. The less-toxic water is then pumped to the upper deck, where salad greens are grown in pots filled with compost, worm castings, and soil, a wicking agent that can efficiently deliver nutrients to the greens. The partnership between UW Sea Grant and Growing Power is also mutually beneficial. Along with the perch, Growing Power has gained Binkowski’s university-based aquaculture expertise. Binkowski now spends about four hours a week at Growing Power, monitoring the fish and water quality.

“Universities haven’t traditionally operated in low-income communities,” Allen said. “The community is getting a tremendous amount of value from the experience Fred brings.”

Binkowski sees urban aquaculture as a new initiative for Wisconsin Sea Grant.

“Aquaculture traditionally takes place in rural settings requiring ponds, wells, and raceways,” he said. “Urban aquaculture can cut transportation costs, create jobs, and take advantage of abandoned warehouses that are cheaper to convert to food production than to condos.”

Both men agree that urban aquaculture can grow and deliver seafood products right where consumers live. Growing Power already markets its fresh fish and vegetables to local farmers’ markets and restaurants and through Community-Supported Agriculture shares.

“We are learning every day how to make this work. It takes a long time to get it right, but the community is ripe for this. We want to build systems to help farmers make a living,” said Allen.

Allen was awarded a “Genius Grant” in 2008 by the John D. and Catherine T. MacArthur Foundation. The $500,000 grant, allocated over five years, will allow Allen to boost his productivity and spread the word even faster. —CRB

Lubchenco Named to Head NOAA

President Barack Obama has named Oregon State University Professor Jane Lubchenco, one of the nation’s most prominent marine biologists, to head the National Oceanic and Atmospheric Administration (NOAA). Lubchenco’s area of expertise concerns the interactions between humans and the environment: biodiversity, climate change, sustainability science, ecosystem services, marine reserves, coastal marine ecosystems, and the state of the oceans and of the planet. Lubchenco also founded the Aldo Leopold Leadership Program, which aims to turn talented young scientists into effective communicators with the media and policymakers. Lubchenco is the first female administrator of NOAA (and U.S. under secretary of commerce for oceans and atmosphere).
During his years with UW Sea Grant (and after), Phil Keillor authored or co-authored:

- Coastal Processes Manual: How to Estimate the Conditions of Risk to Coastal Property from Extreme Lake Levels, Storms, and Erosion in the Great Lakes Basin
- Living on the Coast: Protecting Investments in Shore Property on the Great Lakes
- Stabilizing Coastal Slopes on the Great Lakes
- Working with Engineers and Contractors on Shore Protection Projects

View any of these publications for free online at http://aqua.wisc.edu/publications

For additional information, please visit the coastal natural hazards website at http://www.seagrant.wisc.edu/coastalhazards