

# WATERSHED

A Newsletter of the Wood-Pawcatuck Watershed Association

Volume 24 No. 1

WINTER 2007

## Mitch Salomon 1914-2006

by  
W. Edward Wood

**M**itch Salomon, one of the earliest architects and founders of the organization which became the Wood-Pawcatuck Watershed Association, passed away peacefully at home on November 22, 2006. He was 92.

It was at his dining room table on the banks of the Pawcatuck River in Hopkinton that Mitch and his wife Betty gathered a handful of early supporters of the WPWA idea in 1982 to sketch out a concept and make plans for converting the ideas into a functioning organization.

Betty and their three children, David of Cambridge, MA, Judith of Shaker Heights, OH, and Deborah of Santa Rosa, CA, were all at his side on the evening before Thanksgiving. They report Mitch lived the final hours of his life, as he had lived the previous nine decades - with quiet grace, dignity, intelligence, curiosity, and, always, humor.

He will be greatly missed by all he befriended and taught. He will,

of course, be especially missed by the WPWA community. "Mitch was such an inspiration," said Lori Urso, WPWA executive director.



Mitch Salomon monitoring the Pawcatuck River

"In a way we were all his students, learning from his knowledge of the watershed over the years. I was always so impressed by how he and Betty made the river a part of their lives, and how they celebrated the

watershed by enjoying their land to its fullest potential, but always with respect and reverence."

"I most remember his dearness, his absolute dearness," recalled Ellen Dodge, WPWA's first executive director. "And how game he was. I remember one weekend Manny Point held a canoe safety course for some of us. One exercise was to tip over a canoe, right it and get back in. Mitch, already in his 70s, was the first one in the water and the first one back in the canoe, while the rest of us floundered, freezing in the cold river."

I remember a similar experience several years later, when Mitch

and I went for a canoe trip. We were wrestling the canoe down a big embankment at the launch point on the Wood River off Route 164. I suddenly was embarrassed to realize I was standing at the top of the slope watching an 80-year-old man do all the hard work.

Raised in Passaic, New Jersey, Mitch came to Rhode Island in the early 1930s as a student at the University of Rhode Island. Although his studies were always important, it surprised many of us who knew him as a "professor emeritus" to discover that as an undergraduate his passion was basketball.

Mitch played at URI under the legendary coach Frank Keaney on the team that pioneered the fast break and revolutionized the game of basketball. Coach Keaney always called him "Number 11," Mitch told me a few weeks before his death, a reference not to his jersey number but to his skinny legs.

After service in the European theater in World War II, Mitch completed his education in soil science and returned to URI to teach. In 1946 he and Betty were married and they celebrated their 60<sup>th</sup> anniversary last June. (Continued on page 6)

## From the Executive Director

### *Celebrating "my" 25th issue of Watershed*

I hope it's ok for me to celebrate on my own behalf.

The first time I thought about editing or publishing *Watershed*, I'm sure in my mind I was faced with a daunting task, and a legacy to live up to.

For years *Watershed* was created by the late Polly Matzinger, a former trustee and charter member of WPWA, and a generous benefactor. She was highly skilled, and created a dynamic and informative publication for many years.

The newsletter was originally designed by Russell Kolton—he gave it the great look that we've tried to maintain all these years.

So when I realized on my return to WPWA six years ago, that I was facing the task of either producing this newsletter myself, or finding a skilled volunteer, I chose to try my hand at it

I remembered things Polly and I had discussed in years past, particularly about style and consistency. I tried to keep it true to the originally-intended layout, allowing of course the benefit of today's digital technology. (Polly used to come to the office with paste-ups on cardboard, back then, and I gave her written or typed copy, and pictures to drop in!).

So I hope you like this, "my" 25th issue of *Watershed*. Thank you to all who have contributed written material, and thanks again to Polly and Russell for the model that has become WPWA trademark.



## Capital revolving loan fund makes restorations possible

Last winter, the trustees gave careful thought to the grant opportunities for restoration projects that WPWA had turned down in the past, solely because the grant funds were reimbursable, and WPWA did not have the enough liquid cash reserves to float for up front costs. But without WPWA, these important projects might never happen in our watershed.

Trustee Harold Ward formulated a clever funding idea that could address the issue, and be self-sustaining.

WPWA approached the Champlin Foundations with a grant request to establish a Capital Revolving Loan Fund that could be tapped to cover upfront costs, and then later reimbursed with promised grant revenues.

Seeing opportunity, Champlin Foundations awarded a \$250,000 grant to create the fund. Use of the fund is strictly limited to capital project costs, not operational.

With the security of up-front funds available, and the requirement that loans from the fund be backed by a promised grant source, the fund will be available in perpetuity, giving WPWA the freedom to take on capital restoration projects in our watershed. An appropriate role of a Watershed Council—to make a significant impact on river resources, aquatic life, and our overall quality of life.

## Lattner Foundation addresses operational side of projects

Responding to WPWA's success in creating a capital revolving loan fund, and also to a recognized need for administrative

capital to carry out project ideas, the trustees of the Forrest and Frances Lattner Foundation awarded a grant of \$50,000 to provide administrative support for five specific projects, including fish passage in Shannock and Kenyon, restoration of Mastuxet Brook in Westerly, and public access on the Pawcatuck River in Richmond.

Lattner Foundation has been a partner in WPWA's scientific programs for several years, and encourages matching gifts to the association, particularly from members in the greater Westerly-Pawcatuck region.

## Dubs Family donates public access area in Richmond.

*Access area to be named in honor of the late John "Jay" Cronan*

WPWA is delighted to accept three acres of land on the Pawcatuck River in Richmond.

The land is a gift of Roy and Kim Dubs of Hopkinton. Roy's relationship with WPWA is longstanding, including service as a board member in the 1990's.

The land includes approximately one acre that is currently used as a public canoe and fishing access, in partnership with RI DEM.

The access will be renamed in honor of another past board members, the late John "Jay" Cronan, to recognize his contributions to wildlife and fisheries in Rhode Island and New England. A formal dedication may take place on Opening Day.

WPWA thanks Ray Cherenzia for engineering and surveying services, and Richmond planner Denise Stetson for her assistance with the subdivision.

## Fish swimming speeds should influence fish passage design

Saul Sailsa

Researchers at WPWA want to know how fast and how far different species of fish swim under various conditions. If you wonder why, the reason is because we believe that fish passage facilities (such as culverts and fishways) must be designed to allow successful passage by our watershed's target species of interest. Proper design allows better environmental enhancements, and improved stream continuity for the available migratory fish species and permanent resident species in our rivers and streams.

There are three different categories of migratory fish species: anadromous, catadromous, and diadromous.

Anadromous fish spawn in fresh water, go out to sea to grow and mature, then return to fresh water to repeat the cycle. Examples include the Atlantic salmon, rainbow smelt and the river herring or alewife.

Catadromous fish spawn at sea, enter fresh or brackish water to grow to maturity, then return to the sea. The American eel is an example of a catadromous fish. It spawns in the ocean near Bermuda, then the early life history stages drift to our shores, entering streams and salt ponds. There they grow to maturity, then return to sea where they die after reproducing.

Diadromous fish spawn in fresh water, enter estuaries or the open sea for short periods of time to feed actively and grow, then return to fresh water. Some segments of brook trout populations

are diadromous. These fish tend to be significantly larger in size than the non migratory segment of the population.

The swimming behavior of fish has often been partitioned into three general categories: cruising speed, sustained speed and burst speed.

There has been some confusion in the literature regarding the meaning of the term "sustained." We prefer to use the term "cruising" speed, rather than sustained speed, for the long term swimming performance (such as migration) which may last for many hours.

Sustained swimming (cruising) occurs at relatively slow speeds, and this speed utilizes primarily red muscle fibers which are fuelled by energy derived from aerobic metabolism. This swimming mode permits the fish to maintain relatively constant velocities for long periods of time without noticeable fatigue.

Darting or burst speeds involve white muscle fibers which utilize energy from anaerobic processes in order to obtain high speeds (such as catching prey or avoiding predators), but this speed can be maintained only for short periods of 10 to 20 seconds duration at best. We use the term "sustained" speed to describe the speed which can be maintained for several minutes, and which is used to permit passage through difficult areas, such as high velocity rapids, culverts and fishways.

When making preliminary estimates of swim speeds and overall swim capacity of trout and salmon, the following approximations apply:

Cruising speed-- ~ 2 ft/sec

Sustained speed- ~ 2-6 ft/sec

Burst (dart) speed- ~ 6-13 ft/sec

These are rough approximations of fish speeds under average conditions. However, there are more complex and precise means for defining these speeds, such as multiple regression models that utilize variables of length, water temperature, and a time variable.

The energy requirements of swimming fish are related to the square of the apparent velocity (measured as ft/sec). As velocity of water increases, fish rapidly tire. The build up of lactic acid in the fish due to unusual activity can be fatal. Reported recovery times are quite variable after exhaustive exercise, with recovery from extremely active movement sometimes requiring hours.

Swimming speeds are affected by available oxygen in the water. It has been reported that swimming effort may be reduced by almost 60 percent at oxygen levels of one-third saturation values. Oxygen levels in water also affect other physiological functions of the fish.

Temperature well above or below the optimum range for any species also affects swimming effort. A fifty-percent reduction of swimming effort may occur as a result of adverse temperatures.

WPWA hopes to match the impacts of fish size, water temperature, and dissolved oxygen content, as well as other factors, to changes in the swimming speeds of specific fish species of interest in our watershed. In designing upstream passage facilities, WPWA advocates an average velocity of water in the passage well below the burst speed of our target species.

## Local groups collaborate on shared volunteer management

By Jennifer Styles

Did you know that there are over fifteen watershed councils and forty land trusts in Rhode Island? All but a few of these organizations are run entirely by volunteers and often do not have the human resources they need to accomplish all that they would like in the community.

As a part of a pilot project, WPWA is working with the Land and Water Partnership, a collaboration of the RI Rivers Council, the RI Land Trust Council, and a partnership of conservation groups around the state to help build the capacity of these grass-roots organizations by developing stronger volunteer programs and engaging more community members in our conservation efforts.

With grants from the United Parcel Service and the Rhode Island Foundation, the Land and Water Partnership is testing an innovative approach to volunteer management by hiring a shared Volunteer Program Manager to work with all of the partnership's conservation groups. The groups will be trained in best practices of working with volunteers, so that they can recruit, recognize and engage volunteers more effectively.

Through this project, we hope to see more Rhode Island residents taking an active role in protecting and preserving their own watersheds and open space. Volunteering for conservation is not all digging in the dirt and picking up litter (though there is plenty of it if for those that enjoy that type of work!) There are many other ways

that you can contribute your time and talents to local watershed councils and land trusts. These include organizational support (joining committees, developing educational programs); office support (mailings, data entry); contributing to newsletters; advocacy work in local communities (attending public meetings, writing letters to local officials); and many more opportunities.

The goal of this project is to house information about volunteer needs from all of the partnering land trust and watershed councils with the central Volunteer Program Manager, so that we can match volunteers to conservation projects by location, schedules, skills, and interests.

If you would like receive our monthly e-newsletter announcing projects around the state, or would like more information about volunteering, contact Jennifer Styles, Volunteer Program Manager at [jstyles@vcri.org](mailto:jstyles@vcri.org) or 401-421-6547.

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## 2006 tick season in RI was second highest on record

Deer tick abundance in Rhode Island for spring and summer 2006 increased by 7.1 percent over 2005, making it the second highest year on record for ticks in the state, according to a University of Rhode Island entomologist. Only in 2002 was there a higher abundance of these ticks in Rhode Island.

The ticks transmit Lyme disease, babesiosis and anaplasmosis.

"The reason for the high numbers this year probably can be attributed primarily to the fact that Rhode Island experienced the

wettest May, June and July since 1982, and we know that tick numbers are tied closely to moisture levels during those months," said Professor Thomas Mather, director of the URI Center for Vector-Borne Disease.

The URI researcher also noted that the number of babesiosis cases in Rhode Island increased significantly in 2006, and while all Lyme disease cases aren't tracked in the state, Mather suspects that incidence of that disease increased as well.

Based on the results of this year's tick survey, Mather said that 68 percent of Rhode Island residents are now at risk for encountering a deer tick close to home, up from about 26 percent in 1993 when tick surveillance in the state began.

During the annual statewide tick survey, the researchers found deer ticks – also known as black-legged ticks – at all of the 61 sites sampled. When the survey was first conducted, ticks were found at just 60 percent of the sites.

"Our research has found that more than 717,000 Rhode Islanders are now at risk for encountering a deer tick where they live," said Mather, whose tick surveillance program has resulted in the world's most comprehensive database on the changes in the distribution and abundance of deer ticks. "Twenty years ago, the state's residents were largely free from this risk, unless they traveled to Prudence Island or Block Island."

To combat the increasing health threat posed by deer ticks in the state, Mather and his research team are launching a new initiative  
(Continued on page 7)

## Partners call for nominations and planning volunteers

*Environment Council of RI, RI Natural History Survey, and Aperia Institute search for local talent*

### 8th Annual John H Chafee Conservation Awards

The Environment Council of Rhode Island (ECRI) and the ECRI Education Fund are seeking applicants and nominees for the Senator John H. Chafee Conservation Awards, which honor organizations for conservation leadership in Rhode Island.

Any conservation project or program of a non-profit organization, corporation, or municipality is eligible for consideration. If you are not part of program, but know of one that is deserving of recognition and public awareness, you are welcome to submit and application for them. Find the form at [www.environmentcouncilri.org](http://www.environmentcouncilri.org) or by calling 401-621-8048.

#### Who is eligible ?

Rhode Island-based non-profit organizations, including educational and volunteer organizations; private sector corporations, including industrial, service, and commercial; and municipalities.

#### Who is not eligible?

Individuals; state and federal government departments and agencies; recipients of the Chafee award within the last two.

#### General criteria:

1. The project or program must have significance to the community and natural environment, must be completed, or well-established and currently operational. The project may serve as a model, may have a volunteer

component; and it may be a collaboration of one or more organizations, including state or federal agencies.

2. Documentation should be submitted to indicate that the major objectives have been achieved.

3. Projects must have been completed within the last three years.

4. Programs must have been originated within the last three years and currently be in operation.

Previous winners include land preservation efforts, habitat restoration projects, environmental education programs, and a variety of projects that have improved industrial processes or reduced energy use and pollution in institutions and businesses.

Award recipients send four representatives (ECRI will pay for two) to the annual awards banquet. Representatives will man a display of their project during the reception, and accept the award from a Chafee family member at dinner, including a brief 3–5 minute remark on the project.

Contact Jack Schempp at 401-331-4553 or the ECRI office at 401-621-8048, for application assistance.

#### RINHS Distinguished Naturalist

Each year RI Natural History Survey (RINHS) asks us to nominate fellow naturalists for the honor of being named one of Rhode Island's Distinguished Naturalists.

The *Distinguished Naturalist Award* is presented by RINHS at its annual conference in March. To date eighteen individuals have received this honor.

A strong pool of thoughtful nominations acknowledges a debt we owe to so many, and thus

strengthens the natural history disciplines in Rhode Island. Consider the individuals who sparked your interest in the natural world, served as role models for your own accomplishments in the field, or contributed to the knowledge of Rhode Island's organisms, geology, and ecosystems that you now enjoy.

Please take a moment to nominate for the 2007 award those whom you respect and would wish to recognize. Submit a letter describing how your candidate has excelled in one or more of the following categories:

- significantly advanced scientific knowledge of Rhode Island's organisms, geology, and ecosystems as evidenced by published books,, scientific papers, and monographs;
- is recognized as an outstanding teacher and educator to students and the public on the form, functions, and ecological significance of Rhode Island's plants, animals, geology and natural systems;
- contributed considerably to enhancing public awareness of the importance of understanding the natural history of Rhode Island's ecosystems.

RINHS staff and board members are not eligible for the award.

Submit nominations electronically to [programadmin@rinhs.org](mailto:programadmin@rinhs.org) or by mail to the address below by Friday, January 26th 2007. Nominations will be reviewed by the RINHS Board of Directors and the recipient will be announced at the 2007 Ecology of Rhode Island conference on March 22, 2007, at the URI Bay Campus in Narragansett, RI.

*(Continued on page 6)*

**Mitch Salomon****1914 – 2006***(cont'd from front page)*

A committed environmentalist, Mitch served for many years on the board of the Rhode Island Audubon Society as well as on the first WPWA board. I remember he and Betty announcing at a early organizational meeting that they always thought the unwritten rule that a husband and wife shouldn't serve on the same board was silly, and that they both wanted to be on the WPWA board. Several of us agreed, and the original board included three husband-and-wife teams.

Mitch's most lasting contribution to WPWA, and to the State of Rhode Island, is the URI Watershed Watch Program, one of the most successful volunteer water quality monitoring programs in the country.

The idea originated at our earliest organizational meetings, but nothing much happened for the first few years until Mitch decided to take the project on as a personal challenge. He went to URI in 1987, recalls Linda Green who has been the manager of Watershed Watch at URI for its 19 years of existence, and talked her boss, Art Gold, into taking on the laboratory and analytic side of the work.

Mitch then went to work finding volunteers, choosing locations for river monitoring, organizing the process of collecting samples and delivering them to URI for analysis. "It is not an exaggeration to say that Mitch Salomon personally was the founder of the Watershed Watch Program," Linda said.

Mitch himself was an active monitor with his partner, Jim Latimer, of the Pawcatuck River

at Bradford until 2005 – well beyond his 90<sup>th</sup> birthday. (Linda also recalled that in the early days Mitch insisted that WPWA (meaning him) would take responsibility for finding all the river volunteers. This was one way of helping out Betty, who was chair of the membership committee for many years, as he sought out volunteers who were not members and then had Betty sign them up for the organization.

What began as a 12-site river monitoring program with 25 volunteers has grown into an undertaking of more than 300 volunteers at over 200 sites on streams, ponds, and even in Narragansett Bay. It is quite a legacy for Mitch to leave us, and a stirring example of what one person can accomplish if he or she takes responsibility and devotes enough energy to the task.

"Mitch showed real dedication, monitoring the same site on the Pawcatuck River for more than 17 years," recalled Denise Poyer, program director of WPWA. "In my 14 years at WPWA he was always thoughtfully kind and was a science mentor that I miss greatly."

Mitch was an unapologetic and thoughtful liberal, a lifelong Democrat. And a ferocious Red Sox fan. In a life filled with so much joy, I don't think he was ever happier than the day Boston finally won the World Series. Unless it was just before his death, when the Democrats took back the Congress.

Several years ago, a donor established the Mitch and Betty Salomon Fund at the Wood-Pawcatuck Watershed Association in honor of the work that Betty

and Mitch did to establish the organization and help it flourish. This fund supports regional planning and advocacy work in which WPWA is involved watershed-wide.

The Salomon Family has suggested that those wanting to honor the remarkable life of Mitch Salomon could add to the fund with a contribution in his memory.

*(cont'd from pg. 5)***Apeiron Institute offers festival planning experience**

The Apeiron Institute for Environmental Living seeks volunteers to join the planning committee for the 6th Annual Rhode Island Sustainable Living Festival & Clean Energy Expo, held in June.

The premier event of its kind in the region, the festival creates a magical day that combines education and the arts in a family friendly atmosphere at Apeiron's award winning Environmental Education Center.

Members of the planning committee will help shape and guide the overall content, scope and production of this special day.

Planning committee members attend 5-7 planning meetings, between now and festival day in June, and serve on at least one of the following sub-committees:

- Entertainment
- Education
- Model Solar Car Competition
- Publicity & Marketing
- Sponsors
- Production
- Community Offerings
- Arts
- Food

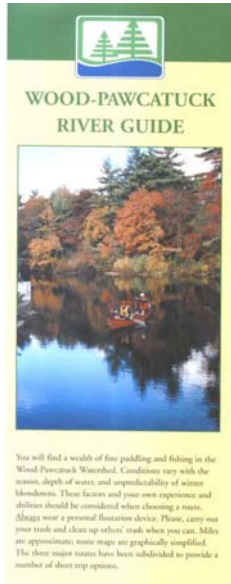
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**WPWA CANOE AND HIKING GUIDES**

Order Form

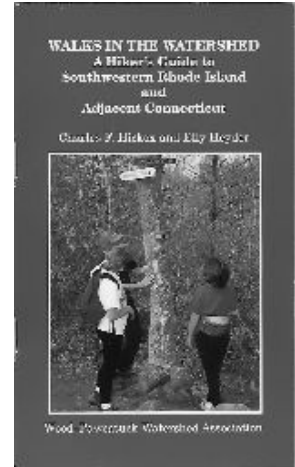
**Wood-Pawcatuck River Guide (2nd edition)**

By Charlie Hickox and Elly Heyder  
 \$ 4.00 members (\$5.00 non-members)  
 Navigate the Wood and Pawcatuck Rivers from source to sea with this colorful folded map.



**Walks in the Watershed**

By Charlie Hickox and Elly Heyder  
 \$4.00 members (\$5.00 non-members)  
 Sixteen of the watershed's best loop hikes contained in a handy pocket-sized guide



Quantity:  
 \_\_\_\_\_ Wood-Pawcatuck River Routes Map  
 \_\_\_\_\_ Walks in the Watershed  
 Add \$1.50 postage and handling per item.

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 Phone \_\_\_\_\_

Mail form with payment to:  
 WPWA  
 203 Arcadia Road  
 Hope Valley, RI 02832

**Aperion** (Cont'd from previous page)

In return, planning committee members gain the chance to support local sustainable living efforts; valuable experience in event planning and production in the non-profit sector; recognition in the festival program and web site; free festival admission for your immediate family; free on-site camping the day before and day of the event; food and refreshments at planning meetings; and a free festival T-Shirt

Interested parties may e-mail [info@apeiron.org](mailto:info@apeiron.org) with committee and meeting time preferences (8:30 am or 5:30 pm).

Those wishing to get involved in a smaller capacity by serving on only one of the subcommittees or volunteering on festival day itself, your participation is welcomed. Call 397-3430 for more info.

**Ticks** (cont'd from page 5)

tive to "drive tick-borne disease out of Rhode Island". The goal of the new program is to prevent disease from happening. "Technology development, public health outreach, and public participation are going to be the key drivers in making Rhode Island one of the safest northeastern states when it comes to tick-transmitted disease," states Mather. "Now with so many people facing this risk," he adds, "it definitely is the right time to take aggressive action."

Mather and his team launched the nation's first tick bite prevention website in June with detailed information about tick biology, strategies for controlling ticks, health tips, and other information useful to anyone going outside areas where ticks are abundant.

Visit [www.tickencounter.org](http://www.tickencounter.org) to learn more.

**Shannock Fish Passage powerpoint report online**

We invite you to take a look at the powerpoint presentation given by consulting engineers Jeanine Bonin and Jim MacBroom at our public workshop in November on the Shannock Fish Passage Feasibility Study.

It takes a moment to download, and may be too much for dial-up, but if you can access it there are some terrific renderings of the sites and images of what different fish passage alternatives might look like, if feasible.

Please feel free to share your comments at [info@wpwa.org](mailto:info@wpwa.org).

A draft Feasibility Report is expected sometime in February.

**Application for Membership**

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

- \_\_\_\_ Individual \$25
- \_\_\_\_ Family \$40
- \_\_\_\_ Contributor \$50
- \_\_\_\_ Corporate \$100
- \_\_\_\_ Supporter \$100
- \_\_\_\_ Sponsor \$250
- \_\_\_\_ Patron \$500
- \_\_\_\_ Benefactor \$1000

In addition to my dues, I am enclosing an additional contribution of

\$ \_\_\_\_\_

Your contribution is tax deductible within the limits of the law.

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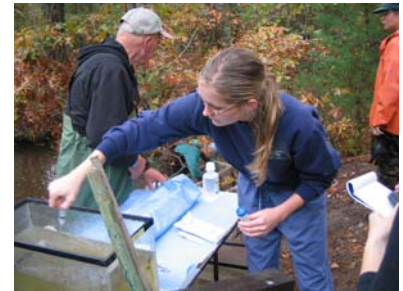
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203 Arcadia Road, Hope Valley  
 at Barberville Dam  
 401-539-9017  
 Email: [info@wpwa.org](mailto:info@wpwa.org)  
 Website: [www.wpwa.org](http://www.wpwa.org)



**Wood-Pawcatuck Watershed Association**



Volunteer Dr. Jenny Meegan from Mystic Aquarium tags brook trout at Lyman Preserve last October. In the background is Dr. Saul Saila.

Opinions expressed in *Watershed* are not necessarily those of WPWA, its Board of Trustees, or staff.

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