WATERSHED

A Newsletter of the Wood-Pawcatuck Watershed Association

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On the Passing of Lawson Cary: A True Champion of Our Local Waters

By Denise Poyer

It is with deep regret that I write about the passing this past spring of Lawson Cary, Jr. In my capacity as the Program Director for WPWA I have been privileged to work with many volunteers over the last fourteen years. All of them are caring, enthusiastic people who really want to help the Wood-Pawcatuck Watershed. For many reasons, the volunteer who stands out the most has always been Lawson. Ask anyone who knew him and you will hear terms such as tireless, committed, dedicated, devoted, tenacious, loyal, responsible, dependable, and honorable. It was not only his friends and family who could depend on Lawson, but also the many organizations for which he volunteered.

According to his son, Lawson Cary, III, Lawson became very involved with volunteerism around the time of his retirement in 1995, after thirty years of employment with the Hoechst Celanese Corporation. It was his passion for fly fishing, particularly for native brook trout in the Falls and Wood Rivers, that lead to his two other passions – bringing others into the sport and protecting brook trout habitats. It was his deep commitment to the sport that gave him so much pleasure and also drove him to put most of his time and energy into assuring that this same opportunity would be there for future generations. This drive naturally led him to taking an active part in the running of the Narragansett Chapter of Trout Unlimited (NCTU). From there he started to volunteer conducting water quality monitoring on the Falls River for URI Cooperative Extension's, Watershed Watch. Although WPWA sponsors water quality monitoring on most of the sites in the Wood-Pawcatuck Watershed (i.e. provides volunteers and funds), Lawson arranged to have NCTU cover the cost of the Falls River monitoring. He expanded the monitoring activities to include flow measurements, helped purchase a flow meter for Watershed Watch, and even built a case to house the instrument. Lawson never left things half done.

My association with Lawson started around this time because his intense interest in preserving and improving brook trout habitat matched WPWA's goals. While it is not possible to cover every project Lawson accomplished, I will just mention a few. With the Arcadia Management Council he had erosion control structures installed at several high traffic fishing accesses on the Wood and Falls River. He was instrumental in helping WPWA receive grant funding from the National Trout Unlimited program to research sea-run brook trout on Red Brook in MA. More recently he was the driving force behind a stream continuity project to assess the effects that road

Lawson Cary (left foreground) Leading one of many Fly Tying Workshops

(Continued on page 3)

From the Executive Director

This summer our campus was filled with the sounds of excited children as they paddled the calm waters just outside our office windows. Many visitors came to take advantage of our low cost paddle programs or simply spend the day fishing from our public dock. I was grateful to meet many of our members this summer as they brought their families to enjoy the beautiful weather and all we offer at WPWA.

Our efforts to optimize fish passage on the Pawcatuck River could finally be seen late this summer as the Bradford Fish Ladder Modification went into the construction phase. Behind the scenes, groundwork was laid to begin engineering the removal of the Lower Shannock Falls Dam. WPWA hopes to bring the engineering firm of Fuss & O'Neill on board soon to begin the design and permitting for the Lower Falls removal.

The Vernal Pool volunteer program was a tremendous success! Nearly 100 volunteers offered their time on the weekends to make this project a reality. Families made up the core of the volunteers giving their children a first opportunity to become stewards of the watershed. This project clearly demonstrated how many of you enjoy combining learning with recreation. One of our missions for the upcoming year will be to adopt the "No Child Left Inside" initiative which will get our youth back out in the wild while helping to bring families closer together. We hope to see all of you paddling the river, hiking the trails, or casting your lines in 2009!

HopArts Teams Up with WPWA For 2008 Trail

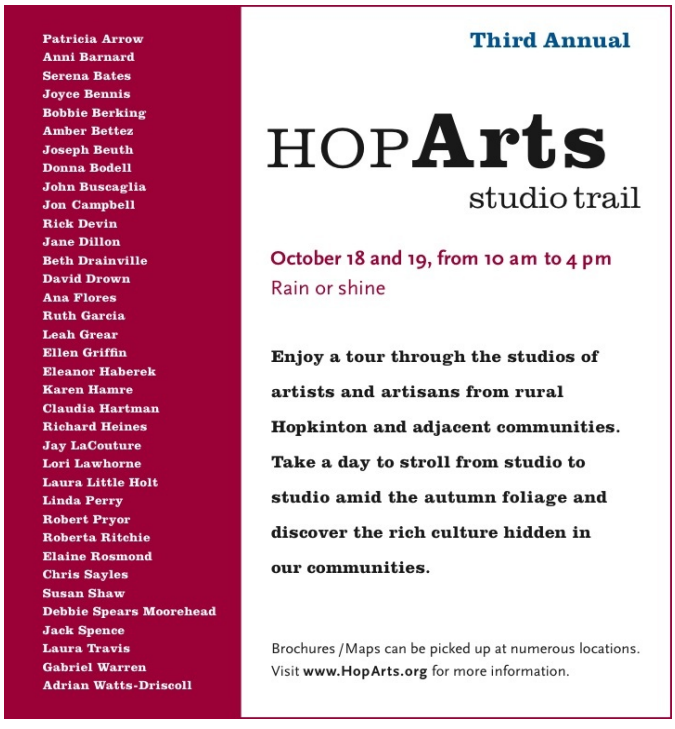
By Chris Fox & Leah Grear

The HopArts Studio trail was founded in 2006 to build and strengthen our communities through the arts. WPWA follows the same mission by involving the local townspeople in their natural environment. Many of the HopArts artists, inspired by our wild surroundings, choose to work with natural mediums and depict wildlife or nature in their art. This connection to the environment inspired the partnership between the WPWA and HopArts. "As we came together as artists, it was our realization that most of the artists chose to reside in this part of Rhode Island because of their love of the area and the watershed" says HopArts coordinator Leah Grear. "We hope through this partnership to continue building connections with each other, with the arts, and with the environment".

As part of this partnership WPWA will host two artists at its Barberville Campus in 2008. Serena Bates, nationally renowned sculpture and students from the Chariho Regional School will utilize our conference room and education center to display their creations. This year's trail will include over 35 artists many opening their studio doors to give the public and inside look at where they craft their masterpieces. For those artists unable to host a stop on the trail, local businesses and non-profits like WPWA will provide space for artists to display their art.

The WPWA is proud to announce its partnership with HopArts and predicts this year's trail will be an overwhelming success. Last year nearly 500 people followed the trail and even more are expected to participate this fall. The studio trail is free, open to the public, and is schedule for October 18 and 19th, 10am to 4 pm, rain or shine. For more information on the artists and map pickup locations please visit www.hoparts.org. Show your support for the arts and environment, be sure to make WPWA's headquarters a priority stop for you on this year's trail!

Leah Grear, Artist
Chris Fox, WPWA Exec. Dir.



Lawson Cary *(cont. from page 1)*

crossings had on streams in the Wood, Beaver, and Queen Rivers' subwatersheds. Lawson taught a number of fly tying and fly fishing programs, not only for WPWA, but also for local schools and organizations such as Women in the Outdoors. One of his most rewarding volunteer efforts was to teach fly fishing to cancer survivors at the Deer Creek Camp in Foster, RI. Every April he facilitated WPWA's Opening Day of Trout Fishing Program, choosing always to be at the "children-only" Frosty Hollow Pond.

Narragansett Chapter

It is important to remember that Lawson did not accomplish all these projects alone. Perhaps his greatest achievement was his ability to organize, inspire, cajole, harry and encourage others to share in his work and goals. As a member of Trout Unlimited he served on the board of the local chapter for fifteen years and held the position of president three times. Besides WPWA and Watershed Watch, Lawson worked with the RI Department of Environmental Management (RIDEM), Research Council and Development of RI (RC&D), Natural Resource Conservation Service (NRCS), Women in the Outdoors, Chariho Middle School, and a host of fishing clubs including United FlyTyers of RI. Whenever someone was needed to spearhead a project, Lawson was called.

During the last several years of his life, Lawson received numerous awards and recognition for his tireless efforts towards his twin goals of getting people out fishing and preserving the habitat for fish. As I stood in line at his wake, I was pleased to see all the plaques and certificates along with many pictures of him doing what he loved, working with others and fishing. These honors attest to the understanding by many people in environmental fields of what an extraordinary man he truly was.

Lawson's Awards Include

2001 WPWA Volunteer of the Year for URI Watershed Watch

2003 Founders Award Alfred L. Hawkes Environmental Achievement Award from RIDEM 2005

2005 RI Rivers Hero Award from the RI Rivers Council

Citations from the Office of Lieutenant Gov. and RI House of Representatives 2005

NRCS Friend of Conservation Award 2007

RC&D of RI Council 2007 Spirit Award

RIDEM Forest Environment 2008 Certificate of Appreciation

Shortly before his passing, a fishing access on the Falls River in the Arcadia Management Area was dedicated in his honor. Lawson appreciated and was proud of every one of these honors.

I believe that Lawson would like to be remembered for something else - above all he was a skilled fisherman. He built his own rods, tied his own flies, and traveled to beautiful areas of the country to enjoy fly fishing with his friends. He was known for a few of the flies he developed, most notably his own special *Lawson's Horse Fly* and the *Yellow-Jacket Fly*. Last fall Lawson approached WPWA to set up an informal, weekly fly tying group at our campus during the winter. Every Wednesday morning a group of mostly retired men would get together to tie flies and chat. This was more than just killing time until spring fishing, for this was a group that kept in touch with each other, supported each other, and welcomed anyone who wanted to learn or improve their fly tying skills.

Lawson's greatest legacy may be that the feisty little native brook trout that he worked so hard to protect will always locally be connected to him. I heard a fitting comment this past summer, when I was speaking with a fly fisherman on the Wood River. I asked how the fishing was and, referring to the brookies, he said, "I caught a couple of, what we call, 'Lawson's trout'." Lawson will be missed by each and every person whose life he touched, both directly and indirectly.

Denise Poyer
WPWA Program Director

Bradford Fish Ladder Modification is Underway

By David Smith & Chris Fox

WPWA is proud to announce that the Bradford Fish Ladder Modification project is underway. The Bradford fish ladder, constructed by RIDEM in the early 1980's, has endured annual high water events that have altered the original stream channel. Erosion around the ladder, combined with high water that traditionally occurs during the spring fish migration, has led to a reduction in the number of fish utilizing the ladder.

On occasion, the entrance to the ladder is submerged, rendering it inaccessible to the migratory fish. Fish are attracted to the turbulent waters that flow from the ladder's entrance, when the entrance is submerged; fish species such as shad, herring, salmon and trout become confused and cannot locate it. As a result, many of these fish attempt to migrate over the adjacent Bradford Dye Dam. Unable to make the giant leap, a vast number of fish exhaust themselves and expire at the dam without spawning and producing next year's crop of returning fish.

One benefit of the project will be the stabilization of the surrounding streambank allowing for safer portage around the ladder by kayakers and canoeists. WPWA hopes to bring school groups to the view the ladder during the spring 2009 fish migration. The awe inspiring sight of fish making their way up the ladder is a great way to inspire and involve children in their local environment.

Bradford Fish Ladder During High Water

The construction cost alone for improvements to the Bradford ladder are expected to exceed $80,000 and should be completed by Wilco Development by late October. This project has been made possible through funding from the USDA's Natural Resource Conservation Service, and the US Fish & Wildlife Service. WPWA has also partnered with RIDEM which owns the ladder and the Bradford Dyeing Association, which owns the land on which the ladder sits.

The repair of the Bradford Fish Ladder is a critical component of WPWA's efforts to optimize fish passage on the Pawcatuck River. The river restoration projects taking place in the village of Shannock rely on the successful repair of the Bradford ladder. In order to restore fish migrations to Wordens Pond in South Kingstown, the Potter Hill Mill and Bradford Fish Ladders must be functioning at their optimal levels. This will maximize the number of fish returning to Shannock and with the planned dam removals and fish ladder additions there, hopefully restore passage to the 1300 acre pond. This historic spawning ground has been inaccessible to migratory fish for generations and its restoration as a breeding ground will benefit fish and fishermen alike. WPWA hopes this restoration plan will help support the dwindling off shore fish stocks and revitalize the breeding stocks.

These projects come with a high price. The dollars and time required to make these projects a reality is enormous. The WPWA is the only local organization with the capacity to take on such projects but continues to struggle to find the time and funds required to implement these historic fishway restoration efforts. Your help is needed to make these valuable projects a reality. Please contact us to find out how you can help restore migratory fish to Wordens Pond for the benefit of future generations!

David Smith is the Editor of the Wood River Press & Friend of the WPWA

Vernal Pool Project is a "Splashing" Success

By Denise Poyer

This past spring WPWA launched a pilot project to see if volunteers could be trained to assess whether or not small pools in the watershed were vernal pools (see *"Watershed"* Spring 2008). At a follow up meeting with Rhode Island Department of Environmental Management (RIDEM) it was agreed that the project was an overwhelming success. A preliminary report showed that 75 WPWA volunteers assessed 140 potential pools in seven towns in the watershed. RIDEM staff also conducted the same field assessments, basically volunteering to work on this project by special arrangements with their department heads. Together, WPWA volunteers and RIDEM staff visited over 350 pools in nine towns during April and early May. Of the pools assessed, over half were confirmed to be Vernal Pools. This means volunteers found evidence indicating that obligate vernal pool amphibians were using the pools for breeding. In many cases volunteers saw egg masses from spotted salamanders or wood frogs. Often fairy shrimp were found alongside the egg masses. Later in the project, tadpoles could be seen in the many of the vernal pools. On rare occasions a few of the adult animals were seen.

This project was also deemed a success because of the opportunity for education and outreach to the public. Many people volunteered so that they could learn more about vernal pools. Most of the volunteers had never seen wood frogs or amphibian egg masses before. When returning forms and equipment, almost every volunteer exclaimed about how much fun they had. It also mattered to them that their efforts will be translated into usable data for future land management.

A final report will be produced by RIDEM from the data sheets completed by WPWA volunteers and RIDEM staff. RIDEM will also provide WPWA with maps showing assessed and confirmed vernal pools, which will be published later on our website. At this time WPWA and RIDEM are working on plans to continue the project next spring to assess potential vernal pools on protected property in the watershed.

WPWA was supported in this project by generous grants from the Cornell Douglas Foundation, Kayla Jean Ricci Memorial Foundation, and Rhode Island Rivers Council.

Kayla Jean Ricci Foundation

HOPARTS TRAIL

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Saturday, November 15 from 10am-1pm

BULLET AND HIGH LEDGES HIKE

Saturday, November 29 from 10am-1pm

WESTERLY TOWN FOREST HIKE

Saturday, December 20 from 10am-1pm

LONG & ELL POND HIKE

Saturday, January 10 from 10am-1pm

LEARN THE ART OF FLY TYING

Saturday, January 24 from 9am-12pm

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$10 Members
$15 Non Members

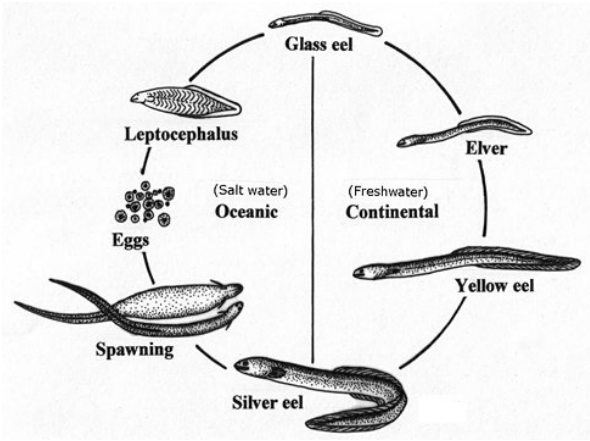
The American Eel
A Fascinating Fish

By Dr. Saul Saila

Whenever WPWA has done fish sampling, we inevitably find American eels of all sizes. Although they are common throughout our streams, this fascinating fish lives a secretive and intriguing life beyond the Wood-Pawcatuck Watershed. They are considered a catadromous fish, meaning they spawn in salt water but spend much of their lives feeding in fresh or brackish water. This is the opposite of an anadromous fish, such as the Atlantic salmon, who spawns in fresh water but spend most of their lives feeding out at sea. While American eels are found from Florida to Nova Scotia, much of their life history is still mysterious.

It was common knowledge that young elvers (the newly pigmented eels) move into freshwater streams in the early spring, and that adults migrated downstream to the sea in the autumn. Until the beginning of 20th century, however, their full life history remained unknown. A Danish scientist named Johannes Schmidt discovered the breeding place by tracking larvae in various stages of development from towed net catches. From this process he was also able to describe the early life history stages in some detail.

All American eels start life in the Sargasso Sea, south and east of Bermuda. Female eels are extremely fertile, producing as many as ten million eggs. Each egg is only about one millimeter in diameter. The females all die after spawning and do not return to their original feeding grounds. The eggs, spawned in relatively deep water, hatch into transparent larvae, termed leptocephali. These newly hatched eels retain their larval flattened form for about one year, during which time they passively drift near the surface of the sea. Some of these drifting larvae are swept up in the Gulf Stream which carries them to the American coast, including our watershed area. A metamorphosis occurs when the larvae are near the edge of the continental shelf. There, the flattened larvae turn into transparent glass eels which are eel-like in appearance. The glass eel then becomes pigmented when entering estuaries or mouths of streams.



American eels may spend from five to twenty years in fresh or brackish coastal waters where they feed and grow. Eels are both predators and scavengers, and they will eat almost anything they are able to swallow. They are nocturnal in habit and spend the daylight hours under cover or buried in the sediments. American eels can grow to a size of more then three feet. Individual eels over sixteen inches in length are almost exclusively females, which tend to ascend upstream much further than the male. In general, the male eels are likely to remain near the mouth of the rivers or in brackish water.

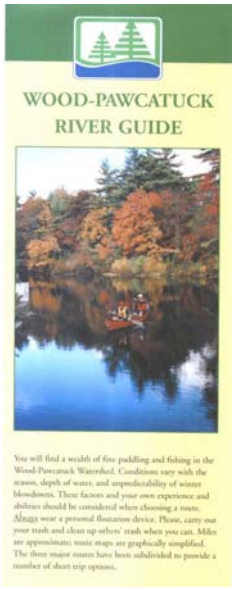
At the end of the growing period (which is quite variable) the American eel stops feeding and the process of sexual maturation begins. Firstly, the pigment of the eel changes from a brownish green color to a dark grey or black upper body and a pure white color below. The eyes enlarge greatly and the pectoral fin becomes larger and darker in color. Both males and females now become silver eels and begin migration to the Sargasso Sea. Mature eels near the Atlantic coast need to swim a distance of several hundred miles in order to reach their traditional spawning grounds. We do not yet have sufficient details on neither the migration path nor the directional cues used to make this remarkable journey. Nor do we have sufficient knowledge about the actual spawning act at this time.

(Continued on next page)

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
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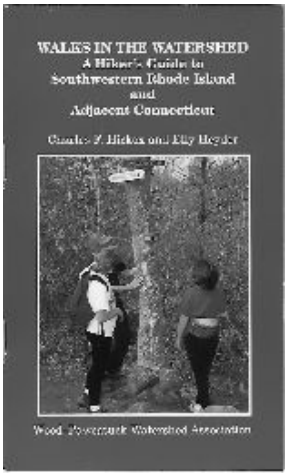

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Interestingly, the European eel, a closely related species, spawns slightly to the east of the American eel in the Sargasso Sea. The larval European eel drifts eastward for a period of two to three years before it reaches the European coast. There the European eels ascend rivers to feed and then, eventually, return to their spawning area. The American eel can be distinguished from the conger eel, which is found exclusively in our marine waters, by the fact that the dorsal fin of the American eel begins far behind its pectoral fin.

Freshwater eels are considered a delicacy in Europe and Japan. This is not generally true in the United States. My father, who was born in Finland, preferred eels over any other fish I caught as a youth. Regrettably, there seems to be some evidence for a recent significant decline in the population of American eels from several regions of the North American continent. There are no specific explanations for this decline over the past decade or more. However, I believe that the demand for glass eels and elvers in Asia fostered an intensive (and sometimes illegal) fishery in the United States, with prices reaching as high as $800 per kilogram. An east coast wide eel management incentive has been taken by The Atlantic States Marine Fisheries Commission to limit and control mortality and to enhance available habitat several years ago. It is hoped that this incentive will improve our knowledge and provide suitable controls in order to sustain an active fishery for this remarkable and interesting fish. By the way, I think that smoked American Eel is a real delicacy!

Dr. Saul Saila,
WPWA Board Member &
International Fisheries Expert

Matt Brown shows off this HUGE American Eel, what a catch!!!!!

Application for Membership

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