

# Littorally Speaking

## When the Hunt for Aquatic Invaders Results in a 'Find'

### *Maine's latest confirmed infestation*



by Roberta Hill

*VLMP Invasive Species Program Director*

**V**LMP Certified Invasive Plant Patroller, Dennis Roberge, who many of you may know through his superb underwater photos, was starting to wrap up his busiest survey season ever. Dennis surveys his home lake—Mousam Lake in York County—on a regular basis; he also holds the record for the most waterbodies surveyed by an Invasive Plant Patroller in a single season. Beating his own record by conducting surveys on forty waterbodies this year, it was on the occasion of lake number thirty-three that Dennis turned his highly-trained eyes toward a portion of nearby Salmon Falls River. In this area, along the boundary of Milton, New Hampshire and Lebanon, Maine, the impounded river settles into three distinct, but interconnected, ponds, locally known as Milton Three Ponds. Northeast Pond, at 685 acres, is the largest of the three and flows into smaller Milton Pond (395 acres) to the south. Both straddle the ME/NH border. Townhouse Pond, similar in size to Milton Pond, is situated west of Northeast Pond and North of Milton Pond, and is entirely in New Hampshire.

Dennis began his survey at the public boat landing. Water clarity was not the

best this day, but as a snorkeler, Dennis was able to dip down below the surface and could see to depths ranging from 5 – 8 feet. He was a couple hundred yards from the boat landing when he spotted a plant that did not “look quite right.” It was a naiad, of that he was sure, but there was something about it which triggered his plant patroller instincts. He bagged the plant for closer examination back home. The rest of the session went smoothly; several more of these odd looking naiads were observed, but they were few and far between. The plants were not large—about 18 inches tall—and neither the size of the plants nor the sparse growth sent off any serious alarm bells. Still, a nagging feeling persisted.

Later that evening, Dennis sat down in a pool of excellent light, at a table on his porch organized for just this activity. Surrounded by his plant identification books, his hand lens, microscope, and other implements of examination, he poured the Salmon Falls River naiad out into a tray. He was on the phone with fellow VLMP Certified Plant Patroller Marsha Letourneau, at the time. As soon as the specimen dropped out of the bag and unfurled itself in the tray of water, Dennis knew exactly what he was looking at. The leaves were slender and strongly recurved; serrations along the leaf edges were plainly visible, even without magnification. The leaf bases were blocky and serrated. “Uh oh Marsha,” he said, “this is a *bad* plant.” And he was right.

Following IPP protocol to a tee, Dennis immediately reported his find to the VLMP by email, attaching several clear, crisp photos of the plant spread out in the tray of water. A day or so later, at the request of the VLMP staff, he returned to the original survey area to collect additional live specimens, which

he packaged and sent in for a confirmed identification. Seeing that the survey season was swiftly coming to an end, and not wanting to lose any time, Dennis used the collection visit as an opportunity to survey an additional 400 yards of shoreline of Northeast Pond. During that survey he saw about 50 suspicious plants, but no dense or extensive growth. Most of what he observed was a diverse, dense community of native plants. Overall, he thought, it could be worse. But there was still much uncertainty. To know the full extent of the infestation, all three ponds and their connecting streams would need to be surveyed. Accomplishing this before cold temperatures brought the survey season to an abrupt halt would require swift mobilization and a major collaborative effort.

In the meantime, the VLMP sent micrographs of key features—leaves, leaf base, seeds—by email to Maine’s panel of aquatic plant experts. Consensus came back within several days—there was no question about it: the plant was European naiad, *Najas minor*. This find means that Maine has another infested waterway, bringing the total number of known infested water systems to twenty-five, encompassing 46 distinct waterbodies. (To learn more about how to identify European naiad, please see page 7.)

Confirmation of European naiad in Salmon Falls River system set off a flurry of activity at the state and local level. Laurie Callahan, founder and coordinator of York County Invasive Aquatic Species Project (YCIASP) took the lead on the response, coordinating an extensive survey of Milton Three Ponds and connecting waterways, to determine the extent to which the invader had spread. In addition to Laurie, who serves as IPP Regional Coordinator for York County,



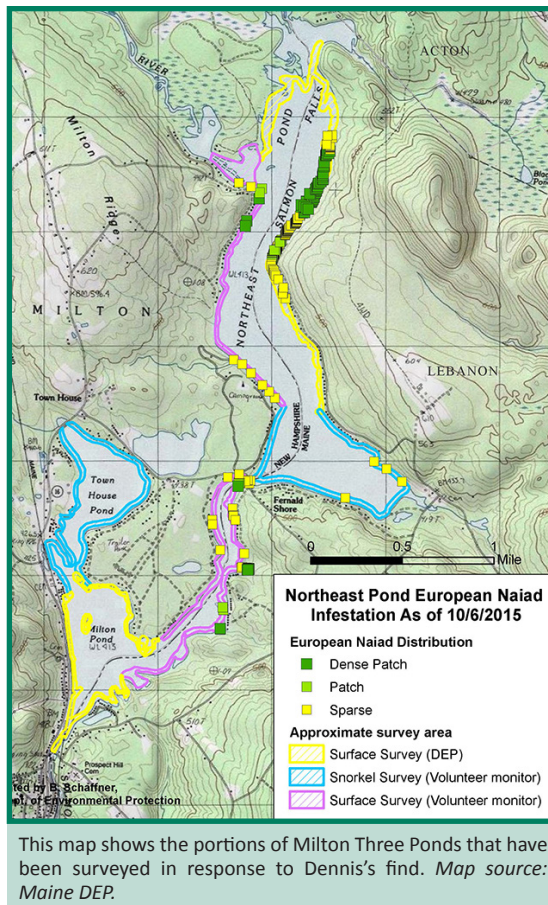
Beating his own record set in 2007, Dennis Roberge conducted invasive aquatic plant screening surveys on forty different waterbodies in 2015.  
Photo credit: Roberta Hill, VLMP.

the response team was comprised of VLMP/YCIASP Invasive Plant Patrollers: Dennis Roberge, Marsha Letourneau, Jeanne Achille, and Melissa (Missy) Brandt, Three Ponds Protective Association volunteers, and personnel from both the Maine Department of Environmental Protection (DEP) and New Hampshire Department of Environmental Services (DES).

The survey took place over a period of several weeks, starting in early September. It covered most of the littoral zone of all three ponds and their connecting streams (please see map). With Laurie Callahan coordinating schedules, communications, and documentation of the survey, the survey team set to work scouring assigned sections of the shoreline, recording the locations of any invasive naiad plants encountered, and—in areas where plants were sparse—removing the offending plants in accordance with established protocol.

As the survey proceeded, it became clear that European naiad plants were scattered lightly (with a few dense patches) over an extensive area in Northeast Pond and the stream segment locally known as “the river” that connects Northeast to Milton Pond. Even more discouraging news came on September 27 when DEP’s John McPhedran reported that an extensive, well-established “mother-lode” of European naiad had been found growing densely along the northeast (Lebanon, Maine) shore of Northeast Pond, just east of where the Salmon Falls River flows in. Additional large dense patches were found near the Branch River confluence (on the New Hampshire side). A more comprehensive management strategy will be needed to address these more extensive areas. There was some good news, too: to date, no invasive naiad plants have been found in either Milton Pond or Townhouse Pond.

In addition to assisting with the survey, ME DEP and NH DES have distributed invasive species warning signs to be posted at boat ramps, urging boaters to inspect for, and remove, plant debris before and after boating in the area. Boat ramp and other land owners, fishing tournament



organizers, and fisheries and warden services from both states were also notified.

Officials from Maine and New Hampshire will be meeting with local stakeholders over the winter to come up with the best strategy for controlling the infestation. The strategy will no doubt include ramping up the Courtesy Boat Inspection program at area public boat landings. A targeted control effort—likely employing one or more manual control methods—will be organized and activated. Careful monitoring will need to be ongoing in the area for the foreseeable future. The VLMP stands by to assist with IPP training.

Whatever the determined plan of action, two things are certain: 1) trained volunteers will have an important role to play in all of these efforts; and 2) Dennis's vigilance as an Invasive Plant Patroller has greatly increased the chances that efforts will ultimately be effective. Who can say how much further this invader would have spread within Milton Three Ponds, or to nearby waterbodies, if it had remained undetected for another year, or two, or even longer?

*There is another important take away here: while much of the focus has been on 'milfoil' here in Maine, invasive milfoils are not the only threat to Maine waters. The State of Maine has officially listed eleven invasive aquatic plants that pose an imminent threat to Maine waters; only three of the eleven are milfoils. Norman Turgeon, a board member of the Three Ponds Protective Association, put it succinctly, "Unfortunately, this one was off our radar."*

Dennis admits that he has been somewhat conflicted about his find. Though while he is out surveying he is always aware that he is hunting for something he hopes never to find, most of the time he just gets caught up in the sheer joy of the work—being on and in the water on the finest days of the season, observing the plants and the wildlife, tallying up native plant species found in each lake, discovering new lakes, spending time with fellow plant patrollers, and continually learning something new. “After seven years of surveying, however, it suddenly got real. I had a moment when I started thinking . . . I’m not sure if I want to do this anymore. I don’t want to find any more bad plants.”

Luckily for us and Maine lakes, that moment passed. Dennis says he is now “more determined than ever” to keep doing what he does, because he knows now, firsthand, just how important this work is. “Plant Patrollers really are making a difference here in Maine. We can all be proud of that.” Dennis is right about this as well. Informed and alert citizens are responsible for finding nearly all of Maine’s known aquatic infestations. Early detection of a new infestation provides the best hope of eradication. In cases where eradication is not possible, the earlier an infestation is detected, the greater the chance that the invasive plants can be managed effectively, and with the least amount of collateral damage to the native ecosystem. 🌿

*To learn more about how you can get involved in Maine's Invasive Plant Patrol, please contact the VLMP today!*