INVASIVE PLANTS COUNCIL EIGHTH Annual Report December 14, 2010

The Honorable Edward Meyer State of Connecticut Senate Legislative Office Building, Room 3200 Hartford, CT 06106

The Honorable Richard Roy State of Connecticut House of Representatives Legislative Office Building, Room 3201 Hartford, CT 06106

Dear Senator Meyer, Representative Roy, and other members of the Environment Committee:

As Chairman of the Invasive Plants Council, I respectfully submit this letter and attachments for the eighth annual report on activities conducted during 2010. This Council was established and operates pursuant to Connecticut General Statutes 22a-381 through 22a-381d, and has the following responsibilities: developing and conducting initiatives to educate the public about the problems created by invasive plants in lakes, forests and other natural habitats; recommending ways of controlling their spread; making information available; annually publishing and updating a list of invasive or potentially invasive plants; and supporting state agencies in conducting research into invasive plant control, including the development of new non-invasive plant varieties and methods for controlling existing species.

The Council

The Council consists of 9 members representing government, the nursery industry, scientists, and environmental groups (see attachment #1). This group has shown a willingness to find solutions to problems and to work constructively. The Council has met 8 times since the seventh annual report dated December 8, 2009. See attachment #2 for the approved minutes for 8 meetings, including those for the December 8, 2009 meeting. The minutes for the December 14, 2010 meeting are not yet approved, and so will appear in next year's report.

I am Professor and Head of the Department of Plant Science and Landscape Architecture, representing the Dean of the College of Agriculture and Natural Resources at the University of Connecticut, and serve as Chairman. Commissioner F. Philip Prelli (Department of Agriculture) (DOA) serves as Vice Chairman. No changes in membership have occurred since our last annual report. At its November 9, 2010 meeting, the Council voted to elect William Hyatt as the incoming Chairman for a two-year term. Louis Magnarelli agreed to serve as vice-chairman, and his appointment was unanimously endorsed by the Council members by subsequent email ballot.

The Council acknowledges the cooperation of the Connecticut Agricultural Experiment Station (CAES), specifically the Valley Lab in Windsor, for providing conference room space for this year's meetings, and the CT Department of Agriculture for the conference room space needed for the meetings during the legislative session. Mr. Logan Senack, the state's Invasive Plant Coordinator, is thanked for taking minutes for the Council. As will be discussed in more detail later, the state funds provided to Department of Environmental Protection (DEP) allowed for the hiring of Mr. Senack through a cooperative agreement with the University of Connecticut. These

funds also supported the cost of production and publication of this annual report. This support has been invaluable to the Council, which for many years had to provide these clerical services through the good will of its members and the charity of their home organizations.

Council Activities

We are very pleased that Connecticut's first Invasive Plant Coordinator, Logan Senack, who was hired in December 2008 through a DEP contract with the University of Connecticut, continued in that role this year. The Coordinator position is absolutely critical to the success of Connecticut's response to invasive plants. The Coordinator oversees these programs, further developing early detection and rapid response procedures for emerging problems and coordinating the implementation of a comprehensive State invasive plant control and prevention program. With the Coordinator in place, the Council played a productive role as an advisory body to be consulted by DEP as it moved these programs forward. The major push for the Council this year was to ensure that effective mechanisms for enforcing the invasive plants legislation would be in place.

The Council responded to requests for assistance from the Attorney General (attachment 3), a legislator, and several members of the general public. Members of the Council gave expert testimony at several public hearings (see attachments 4 and 5):

They spoke in support of legislation (Raised Bill 5320) to add Sec22a-381d to the list of regulations enforceable by conservation officers in Sec.26-6. This would allow the state Environmental Conservation (EnCon) police to enforce the law regarding the sale of banned invasive plants in nurseries and pet shops as well. Similarly, by changing from misdemeanor to infraction the violation of CT General Statute Sec. 15-180, which prohibits transport of aquatic plants on boats and boat trailers, enforcement of the law by state police, EnCon police and municipal police will be more effective.

As a result, a bill allowing EnCon police officers to enforce the invasive plant law (CGS Sec 22a-381d), "Prohibited actions concerning certain invasive plants," passed in the legislature and was signed into law by the Governor effective October 1, 2010.

The state Judiciary made the requested change in enforcement of CGS Sec. 1-180 (transportation of vegetation on boats and boat trailers) as of June 4, 2010. Instead of requiring court appearances, violations of CGS Sec. 1-180 can now be enforced as mail in violations (tickets) with a fee of \$95.

Appropriations committee See attachment #4 for the Council's Feb. 17, 2010 testimony. This testimony was made to urge mitigation of the Governor's cut of funding for the program from \$500K to \$0. The Council urged restoration of a "keep-alive" budget of about \$100K per year that would fund the Invasive Plant Coordinator position, thus allowing educational efforts to continue.

Suggested Plant Regulation Changes

As requested by members of the public, legislators, and the Attorney General, the Council has considered changes proposed to the list of invasive and potentially invasive plants in Connecticut. In keeping with past requests, the Council will announce a period for public comment prior to concluding its discussions and voting on the proposed changes. Requestors seem to not

understand the nuances of the "LISTS" that the Council is charged with maintaining, and the list in the legislation that has banned certain plants listed as invasive by the Council.

With regard to the nomenclatural standard in use on the invasive plants lists, the Council is settled on including a footnote on its plant list that designates the online resource USDA Plants database as the standard authority for nomenclature. (www.plants.usda.gov). DEP will maintain a list of taxonomic synonyms in case confusion arises. The wording of this change is given in attachment #5.

With regard to how invasive plants are regulated within the state, inspection roles for DOA (for aquatic plants being sold in pet shops) and CAES (for plants in nurseries) are now clearly described by the legislation, and a civil enforcement mechanism is being handled by DEP. This has been one of the Council's major accomplishments.

Another major step this year was the initiative by members of the Council to approach their colleagues in the nursery industry regarding phasing out from production barberry cultivars that have been identified as high seed producers. The Council supported the proposal by its CNLA members to explore a voluntary ban on production and sales of 25 high seed producing cultivars of barberry. This strategy of voluntary self-regulation by the Industry was successful for the Council in the past with other commercially important plants that were classified as invasive but were not banned in the state legislation. This approach paves the way for future sterile or very low seed producing introductions of barberry to be propagated and marketed by growers in the State. Experimental lines of sterile barberry and winged euonymus are currently in evaluation at UConn as part of the research being carried out by scientists in the New England Invasive Plant Center. The voluntary ban on the 25 high seed producing barberries is effective July 1, 2010.

Overview of Current Activities and Needs in Connecticut

Invasive plants continue to cause obvious environmental problems, and public concern about them continues to grow. During 2010 the Council continued to receive requests from land holders who want relief from the problem of invasive plants. Removal of invasives from minimally managed areas is a costly proposition, and the State would be well-served by a program that both prevents future invasions and provides educational and financial resources to implement eradication campaigns. The level of response by municipalities to a quick-turnaround Request for Proposals shows both the awareness of the problem in the state and need for corrective mechanisms. A total of 41 applications from 37 municipalities were received, each offering a match, and a total of \$936,403 was requested in funding for an opportunity that had \$175K available. Thus Connecticut citizens are eager for a means to address the invasive plants on their public use lands.

The Council is exploring ways to expedite the efforts of volunteers in the state who will organize work parties to pull invasive plants from sensitive habitats on public use lands. One of the challenges faced by these groups is the disposal fee for the plants once they are removed from the site. Further, if the material enters the compost stream of municipal waste management systems it could inadvertently result in further dispersal of the invasive. Incineration seems to be the best option for dealing with material that is in the municipal waste stream.

Council members are grateful that the changes it recommended in enforcement issues came into law this year. However the loss of funding to support the comprehensive state invasive plant program is devastating. We realize that budgetary times are difficult, but support (~\$100K per

year) for key "keep-alive" functions, such as the coordinator's salary and operating expenses, is absolutely essential if the state is going to be able to address the invasive plants problem.

In its eight years of operation, the Council has worked to refine the initial invasive plants legislation so that mechanisms for inspection and enforcement are now in place for both terrestrial and aquatic problem plants. We have envisioned what a comprehensive invasive plants program would look like in Connecticut, and with the initial funding for the program, DEP was able to move forward to create a Coordinator position and begin to implement this vision (attachment 7). Staff in DEP have taken up the charge of responding to the invasive plants problem, and have utilized the resources and network that the Council provides. When state finances improve and funding for invasive plants is restored to DEP, this infrastructure is ready to fulfill the goals initially enunciated by the legislation that formed the Council in 2002. That said, the near term funding for the State Coordinator's position remains our top concern.

I and other Council members are available to answer questions and provide advice as needed. Feel free to contact me at (860) 486-2925 if questions arise.

Sincerely,

Mary & Musgreen
Mary E. Musgrave

Chairman

Attachment 1. Council members

Attachment 2. Minutes of meetings

Attachment 3. Request from Attorney General Blumenthal and the Council's response

Attachment 4. Appropriations committee testimony

Attachment 5. Environment committee testimony

Attachment 6. Addition to the invasive plant list. [text of nomenclature standard.]

Attachment 7. DEP invasive plant program 2010 accomplishments

INVASIVE PLANTS COUNCIL MEMBERSHIP SEPTEMBER 2010

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Invasive Plants Council Tuesday, December 08, 2009 2 pm, Valley Laboratory Windsor, CT

Council members present: Mary Musgrave, Lou Magnarelli, Philip Prelli, Dave Goodwin, Paul Larson, Tom McGowan, David Sutherland

Others present: Donna Ellis, Nancy Murray, Logan Senack

- 1. Musgrave called the meeting to order at 2:04pm.
- 2. The minutes from the 11/12/09 meeting were reviewed. Prelli moved (second: Goodwin) to approve the minutes. The Council decided to approve the minutes as submitted.

3. Annual report draft review and approval

David Sutherland arrived at 2:18 pm.

The group reviewed the most current draft of the annual report. Prelli moved (second: McGowan) to approve the report as submitted. The Council thanked Musgrave for all her hard work in preparing the report, and thanked Senack for continuing to take minutes at the meetings.

4. Invasive plant boat inspection enforcement

McGowan provided the group with suggested language for a proposed change to CGS Sec. 7-151 that would allow Lake Authority personnel to conduct invasive plant inspections for boats and boat trailers at public boat launches.

Murray noted that it will be extremely important to make sure the new proposed language does not conflict with CGS Sec. 7-151a(d): "A lake authority shall have no jurisdiction in any matters subject to regulation by the Commissioner of Environmental Protection". The new statutes would need to reference Sec. 15-180 of the General Statutes and may need to define what types of boat launches (public/private) would be governed by the law.

The group discussed whether or not traffic control activities (by police or other law enforcement) would be needed if motor vehicles are involved in enforcement actions. The group also discussed the need to make sure that the law will not be used to unreasonably restrict access to lakes accessible by the public.

McGowan moved (second: Prelli) to refer this matter to DEP and asked for an update at the next meeting. **The Council decided to refer the matter to DEP.**

5. Frequency, topics, and schedule of meetings for 2010

The group discussed the meeting schedule for 2010. Musgrave reminded the group that spring and summer are the busy seasons for the nursery industry and would

like to see the April meeting dropped. Sutherland suggested a June meeting to cover the summer gap. The Council decided to plan 7 meetings for 2010:

Jan. 12*

Feb. 9

Mar. 9

June 8

Sept. 14

Nov. 9

Dec. 14

Musgrave proposed discussing the boating legislation issue in January and the *Myriophyllum propium* issue and nomenclatural standards in February.

The group discussed inviting Mark Brand

(UConn) to present the progress of his work on cultivars. Since he has already presented a number of times, Musgrave suggested that everyone review the minutes containing his previous presentations before asking him to present again.

The group discussed the status of the Invasive Plant Coordinator position after June 2010. No solution to retaining the position has been found to date.

6. Legislative strategy for 2010

The text for the change in the boating legislation proposal would need to be finalized by the beginning of February to make it into this legislative session.

The group discussed requesting limited funds from the Legislature to fund the Invasive Plant Coordinator position and will revisit the bare-bones budget concept at the next meeting. Murray was asked to provide a cost estimate to maintain the position.

Paul Larson left the meeting at 3:39.

7. Other old or new business

The Council did not discuss any other old or new business.

- 8. The next meeting is scheduled for Jan. 12, 2010 at the Valley Laboratory in Windsor. Musgrave will confirm that the lab is available on that date.*
- 9. McGowan moved (second: Goodwin) to adjourn the meeting. The Council decided to adjourn at 3:50 pm.

^{*}Follow-up note (added 12/14/09): The Valley Lab is not available on Jan. 12, 2010. The next meeting will take place instead in room G8A of the Department of Agriculture Building in Hartford (165 Capitol Ave), from 2-4 pm on Jan. 12, 2010. -LS

Invasive Plants Council Tuesday, January 12, 2010 2 pm, Department of Agriculture Bldg. Hartford, CT

Council members present: Mary Musgrave, Dave Goodwin, Bill Hyatt, Paul Larson, Lou Magnarelli, Tom McGowan, Les Mehrhoff, Philip Prelli, David Sutherland

Others present: John Blasiak, Donna Ellis, Nancy Murray

- 1. Musgrave called the meeting to order at 2:00 pm.
- **2.** The minutes from the 12/08/09 meeting were reviewed. Prelli moved (second: Larson) to approve the minutes. Hyatt did not attend the December meeting and suggested that he circulate comments about the minutes electronically for the Council to review. Prelli moved (second: Mehrhoff) to table passage of the minutes pending the addition of Hyatt's comments via email. **The group decided to approve the 12/08/09 minutes via email before the next meeting.**
- **3.** Musgrave expressed appreciation to Prelli for the use of the office space and parking for today's Council meeting.

4. Annual report distribution

Musgrave informed the Council that more than 80 copies of the Annual Report were produced and distributed. Logan Senack distributed the reports on December 18, prior to the due date. Musgrave will send copies of the report to heads of Legislative Committees, accompanied by a personal letter that she will write which will include specific comments such as a request for operating costs to support the Connecticut Invasive Plant Coordinator and educational materials on invasive plants. Musgrave expressed her appreciation to the group for all the work they did to put the report together. The report was produced at the University of Connecticut and Council members commented on how well the report came out. Prelli suggested circulating the report electronically, and Magnarelli responded that some hard copies are required by the Legislative Office Building and the State Library. Senack is working on posting the Annual Report on the Connecticut Invasive Plant Working Group (CIPWG) website.

5. Barberry cultivar seed production differences

Tom McGowan arrived at 2:10 pm.

Musgrave circulated Mark Brand's presentation from a previous Council meeting and asked the group how they should proceed with the data. Dr. Brand is now in the third year of data collection for approximately 45 cultivars of Japanese Barberry (*Berberis thunbergii*) and soon will be able to make recommendations of where the drop-off point would be regarding the invasiveness of the cultivars. He would like to have input from the nursery industry and the Council on this issue. Larson commented on the data and where the cultivars could be divided to separate those that are more invasive (i.e., more seeds produced per plant) from those that are less invasive. He recommended that the Council wait until the fall in order to make a more informed decision once the third year

of data are collected this season and the full dataset can be examined. In the interim, Larson suggested that 8 to 10 cultivars already identified as high seed producers be discussed at the Connecticut Nursery and Landscape Association's (CNLA) annual meeting, to be held the next day on January 13, and that the growers voluntarily phase out production of said cultivars, similarly to what was done with porcelain berry and autumn olive in the past. If CNLA members endorse the recommendation, one year of production will be eliminated. Larson and Goodwin will present this recommendation at the annual meeting.

Goodwin discussed other research Dr. Brand is conducting to develop sterile cultivars of Japanese Barberry, which may coincide with the nursery industry's phase-out of production. Larson commented that of the 6 cultivars widely grown with high seed production, 3 have a good substitute already available to use as an alternative. Larson feels that the industry needs to learn to live with fewer cultivars and the public needs to accept changes with alternative cultivars being available.

The group continued with discussion of this topic and the option of addressing the issue on a cultivar by cultivar basis versus looking at the plant from a species level. Magnarelli commented that it would be a good move forward if the industry was willing to take out plants that are questionable regarding their invasiveness and replace them with less invasive alternatives. Larson commented that the focus should be on positive results and successes.

David Sutherland joined the group at 2:33 pm.

Prelli moved (second: Magnarelli) that we endorse our Council members to approach the nursery industry to try to phase out production of 8 to 10 cultivars of Japanese Barberry on a trial basis. The motion carried unanimously.

6. Invasive plant boat inspection enforcement

Hyatt reviewed discussions from previous Council meetings regarding the recommendation of the group that CT DEP should change the misdemeanor for Sec. 15-180 to an infraction (see October 13 and November 12, 2009 minutes). He stated that DEP has had internal discussions on how to enforce CGS 22a 381d, with a decision to enforce via civil action. Section 22a 381d will be added to the list of statutes enforced by DEP enforcement officers and that with the assistance of biologists, the officers will contact experts to accompany them to sites to do the enforcement (note: for Sec. 15-180, any plant is prohibited so officers do not need to be accompanied by experts). Hyatt said that the DEP strongly supports efforts to do voluntary monitoring but that the agency cannot expand Lake Authority enforcement. Lake Authority personnel currently have limited enforcement (only when a boat is in the water. Before and after a boat is in the water (when it is on a trailer), violations would be motor vehicle violations and as such would come under the jurisdiction of a police officer.

The group discussed enforcement of invasive plant legislation, particularly when boats come out of the water covered with aquatic vegetation. A question was raised to look at other states and what they do to address this issue. Mehrhoff mentioned that in Maine, boat sticker revenues are collected. In Maine, law enforcement officers inspect vessels.

McGowan expressed appreciation to Hyatt and DEP for addressing this important issue. He and Hyatt will further discuss the Lake Authority enforcement program. While DEP will pursue legislation so that DEP enforcement officers can enforce the invasive plant legislation, the Council would need to take action to change the Sec. 15-180 misdemeanor to an infraction. Sutherland will help with this. McGowan moved (second: Musgrave) to express appreciation to DEP to take steps for conservation officers to enforce invasive plant statutes. The motion carried unanimously.

7. Legislative strategy for 2010; minimum budget concept, etc.

The group revisited the bare-bones or minimum budget concept. Sutherland stated that the Council hopes to maintain a budget of \$100,000 per year and that they should ask the Environment Committee to introduce a bill to that effect. Magnarelli commented that this information should be included in Musgrave's letter which will accompany the Annual Report given to the Environment Committee. Funding levels were discussed to continue to support Logan Senack's salary and fringe benefits as the CT Invasive Plant Coordinator. The remaining funds would support ongoing invasive plant education and enforcement, as well as emergency responses to new invasives. Prior to the February Council meeting, Sutherland will help with contacting the Environment Committee to introduce a bill.

8. Disposal of invasives (municipal waste streams)

The group discussed various ways that invasive plants are disposed of once they are removed from a property to minimize further spread via seeds or plant parts. Regulations differ from town to town regarding disposal of plant material in landfills or incinerators. Council members asked if stickers could be generated to put on bags designating the plant material as invasives and to be disposed of properly. Other suggestions were to contract with businesses that could be contacted to pick up and properly dispose of (incinerate) invasive plant material. The group decided to revisit this topic at the next meeting.

9. Other old or new business

- -Murray is working on the *Myriophyllum* identification issue and will be contacting Don Les at the University of Connecticut to conduct DNA analysis.
- -Mehrhoff requested that the Council bring in experts to discuss and clarify definitions of species, cultivars, and varieties.
- -Mehrhoff also mentioned that the next CIPWG invasive plant symposium will be held on October 14, 2010 and that DEP had donated \$2,000 to support the previous symposium in 2008, which was attended by 400 people. He requested that DEP consider supporting the 2010 symposium.
- -Mehrhoff volunteered to put a table together of nomenclatural standards for invasive plants to be discussed at a future meeting.

- 8. The next meeting is scheduled for February 9, 2010 at 2:00 p.m. at the Valley Laboratory in Windsor.
- 9. McGowan moved (second: Mehrhoff) to adjourn the meeting. The Council decided to adjourn at 3:42 pm.

Invasive Plants Council Tuesday February 9, 2010 2 pm, Valley Laboratory Windsor, CT

Council members present: Mary Musgrave, Les Mehrhoff, Bill Hyatt, Paul Larson, Lou Magnarelli, David Sutherland

Others present: Donna Ellis, Nancy Murray, Logan Senack, John Blasiak, Dick Shaffer

1. Musgrave called the meeting to order at 2:14 pm.

2. Recap of voting on 12/8/09 minutes

Musgrave detailed the process by which the minutes for 12/8/09 were approved with corrections via email vote between the 1/12/10 meeting and the 2/9/10 meeting.

3. The minutes for the 1/12/10 meeting were reviewed

Mehrhoff requested that the statement attributed to him on page 2 ("... in Maine, boat sticker revenues are applied ...") be modified to not be attributed to him directly, as he did not recall saying it. Larson moved (second: Hyatt) to accept the minutes as corrected. **The Council decided to approve the 1/12/10 minutes as corrected.**

4. Annual report distribution

The remaining 17 copies of the annual report were mailed with cover letters from Musgrave on Jan 19, 2010. The report is also now available online at the CIWPG website: www.hort.uconn.edu/cipwg/ipc.html.

5. CNLA reaction to the barberry cultivar proposal

Larson presented a proposal phasing out the sale of high seed-producing barberry cultivars to the Connecticut Nursery and Landscape Association (CNLA) after it was discussed at the Jan. 11 IPC meeting. The proposal involved voluntarily removing from sale 8-10 cultivars of Japanese barberry (*Berberis thunbergii*) known to produce high numbers of seeds. The CNLA board reviewed and endorsed the proposal unanimously. The larger growers will meet around the beginning of March to discuss the issue further. Larson reported that Dr. Brand (UConn) is working to develop a formula to better quantify invasiveness. The formula would take into account the age of the plants, seed production, seedling vigor, etc. to calculate the potential for invasiveness and is being viewed by USDA as a possible example for future work.

Musgrave thanked Larson for bringing up the proposal so promptly to CNLA.

6. Nomenclatural standards used in plant taxonomy

Mehrhoff distributed a list of suggested sources for a nomenclatural standard. The list included the accessibility and type of each publication (cost, book vs. internet database,

etc.). Mehrhoff recommended that the Council consider using the USDA PLANTS database as a source of the accepted scientific name for each species and suggested that someone, possibly at DEP, maintain a list of synonymy in case scientific names changed. The group discussed the reasoning behind adopting a nomenclatural standard. Blasiak expressed concern that it might be difficult to come to an agreement regarding identification of species if different sources were used. Blasiak also asked what would happen if one species were split into two species on the list by taxonomists, and expressed concern that changing the list to reflect future taxonomic changes would be legislatively difficult. The Council discussed these issues.

David Sutherland arrived at 2:50 pm.

Magnarelli expressed concern about adopting a nomenclatural standard because any name changes would have to go through the legislative process each time they were changed.

Murray stated that it would be very important to maintain a list of synonyms to reduce possible confusion regarding the species on the list.

Musgrave suggested that the issue might be resolved by simply referencing the USDA PLANTS database as the source that had been used when the list was developed. Mehrhoff will report back at the meeting following the March meeting regarding whether or not the names used in the original legislation still match the names used in USDA PLANTS.

7. Nomenclature and the Council's charge

Murray updated the group on the status of *Myriophyllum propium*, an aquatic species being sold in nurseries that does not appear in the scientific literature and which resembles *Myriophyllum aquaticum*, a CT banned and invasive plant. Researchers at UConn and at the Connecticut Agricultural Experiment Station (CAES) plan to continue conducting DNA tests in an attempt to determine what species the plant actually is. Murray noted that the plant may be a cultivar. It may also be a native species or something that is mislabeled. The results of the research will likely not be available for several months. CAES has posted an advisory on its website, warning that the species closely resembles known invasive plants and may become invasive in Connecticut.

The group discussed the word "cultivar" in legislation. Mehrhoff noted that in Massachusetts, the invasive plant list includes all of the synonyms, subspecies, varieties, cultivars, and forms of a species. Blasiak asked if this meant that all cultivars of all species on the list would be banned. Mehrhoff noted that in Massachusetts, cultivars that are scientifically demonstrated to be non-invasive or sterile can be removed from the list. Blasiak asked how the issue of Japanese bittersweet would be addressed, because of its potential for hybridization and cross-pollination. Blasiak expressed concern that this restriction would stifle development of non-invasive cultivars. Mehrhoff responded that cultivars demonstrated through peer-reviewed science to be non-invasive could be removed from the invasive list. Blasiak asked for clarification of the review process.

Musgrave asked if the list could be taken out of the legislation and given to the Invasive Plant Council so that it could be amended and updated as needed. Hyatt responded that the work produced by the Council would be a policy document, which doesn't have the same legal standing as a state statute or regulation by a state agency.

Magnarelli noted that there may be some concern that having UConn and CAES conduct research on *M. propium* may seem to be a duplication of effort. Magnarelli stressed that independent reproducibility of scientific results is important, and that having both UConn and CAES test samples is not a duplication of effort.

The Council decided to return to the nomenclature issue at the meeting following the March meeting.

8. Status of legislative efforts

Hyatt reported on the status of the enforcement of CT General Statue Sec. 15-180, the law regarding the prohibition of the transport of aquatic plants on boats and boat trailers. DEP has concluded that the misdemeanor can be changed to a mail-in violation (similar to an infraction) so that it can be enforced effectively. The change can be made in as little as three weeks by the Judges of the Superior Court. DEP has requested this change. DEP also recommends that Sec. 22a-381d (prohibited actions concerning certain invasive plants) be added to the list of violations enforceable by Conservation Officers in Sec. 26-6. This would allow the state Environmental Conservation (EnCon) Police to enforce the law regarding the sale of banned invasive plants in nurseries and pet stores as well, with the assistance of experts who can identify invasive plants. Hyatt suggested that the Council also recommend the change.

Hyatt clarified that Lake Authority patrolmen do not have the authority to enforce Sec. 15-180 at a boat launch. State police, EnCon police, and municipal police do have the authority to enforce the law. Lake Waramaug Lake Authority state troopers and municipal officers can already enforce this law because they are state troopers and municipal officers. The Council discussed making the recommendation for this legislative change.

Sutherland noted that the request for the \$80,000-\$100,000 bare-bones budget could be added to the request for the change in enforcement of Sec. 15-180, or could be approached separately. Sutherland recommended including only the change in enforcement in the recommendation for the legislative change.

The group discussed submitting testimony in support of the budget funding, and Musgrave agreed to deliver the testimony at the hearing on Feb. 17, 2010. The Connecticut Invasive Plant Working Group (CIPWG) will also send out an announcement alerting the public to the hearing.

9. Disposal of invasives (municipal waste streams)

The group discussed the needs for the appropriate disposal of invasives. The group noted that much of Connecticut's waste is disposed of in trash-to-energy plants and that this may be the best way to deal with invasive plants and seeds. Bridgeport incinerators may need a

special permit for the disposal of some types of material. Musgrave will to invite Karen Weeks (CNLA) to the next meeting to discuss different plant disposal ideas.

The Council will discuss the disposal of invasives at the March meeting.

10. Other old or new business

There was no additional old or new business discussed.

11. Next meeting

Tuesday, March 9, 2010, 2-4 pm, Valley Lab, Windsor.*

12. Adjournment

Sutherland moved (second: Hyatt) to adjourn the meeting. The Council decided to adjourn at 4:10 pm.

Location change: The next meeting will take place in room G8A of the Department of Agriculture Building in Hartford (165 Capitol Ave), from 2-4 pm on March. 9, 2010. -LS

Invasive Plants Council Tuesday, June 8, 2010 2 pm, Department of Agriculture Hartford, CT

Council members present: Mary Musgrave, Bill Hyatt, Paul Larson, Lou Magnarelli, Tom McGowan, Les Mehrhoff, David Sutherland

Others Present: State Representative Mary Mushinsky, John Blasiak, Donna Ellis, Bob Heffernan, Peter House, George Krivda, Nancy Murray, Logan Senack, Kevin Sullivan, Karen Weeks

1. Musgrave called the meeting to order at 2:03 pm.

2. The minutes for the 2/9/10 meeting were reviewed

Larson moved (second: Magnarelli) to approve the minutes as submitted. The Council decided to approve the 2/9/10 minutes as submitted.

David Sutherland arrived at 2:08 pm.

The Council also decided to attach the unofficial summary of the 3/10/10 meeting to the minutes from this June meeting.

3. Chair and UConn Rep contingency plans for remainder of 2010

In the event that Musgrave is unable to attend future meetings, Dean Greg Weidemann will represent the UConn College of Agriculture and Natural Resources at the Invasive Plant Council. Musgrave's responsibilities as Chair will be assumed by IPC Vice-Chairman Phil Prelli.

4. Nominating Committee

Musgrave asked the group to find a Chair for future years, and stated that she would not be able to accept another 1-year extension of her term as Chair. Murray and the group thanked Musgrave for continuing to serve as Chair and for accepting the first 1-year extension of her term.

5. Update from DEP

Bill Hyatt arrived at 2:10 pm.

Hyatt reported to the group that a bill to allow Environmental Conservation Police Officers to enforce the invasive plant law (CGS Sec. 22a-381d, "Prohibited actions concerning certain invasive plants") passed in the legislature and was signed by the Governor. The change will take effect October 1, 2010.

Rep. Mushinsky arrived at 2:11 pm.

Additionally, Hyatt reported that the state Judiciary made the requested change of enforcement of CGS Sec. 15-180 (transportation of vegetation on boats and boat trailers) as of June 4. Instead of requiring court appearances, violations of CGS Sec. 15-180 can now be enforced as mail-in violations (tickets) with a fee of \$95.00.

Sutherland and Weeks reported that the state budget situation in the legislature is still discouraging. Weeks noted that CNLA did push for funding of the Invasive Plant Coordinator position, and many Senators and Representatives did try to find funds, but the state's dire economic forecast for coming years meant that finding funding was not possible.

Hyatt reported that UConn and DEP have signed an amendment to the current Cooperative Agreement extending the Agreement for one additional year. DEP was able to find additional funding, which will be used to continue the Coordinator position for one additional year, to June 30, 2011.

McGowan informed the group that he was elated to hear that the CGS Sec. 15-180 enforcement issue had been resolved, and thanked the group for its efforts.

6. Concerns from State Representative Mushinsky

Mushinsky asked the group to consider a ban on fertile cultivars of Japanese barberry and winged euonymus. She noted that both species were a recognized nuisance and in some cases taxpayer money was being spent to both buy and also remove the plants from the landscape. She cited an example of a grant from state funds being used to remove Japanese barberry from a New Haven high school. She beseeched the Council to ban fertile cultivars of the two species or to set a date for future action if a ban could not be done right away. Musgrave responded that both species are already on the state list of invasive plants and therefore were not allowed to be purchased by state agencies or with state funds. Musgrave also noted that Dr. Yi Li at UConn had recently developed a triploid euonymus that was sterile.

7. Update from Connecticut Nursery and Landscape Association (CNLA) on barberry phaseout

Heffernan provided an update to the group about the CNLA barberry phaseout proposal. The proposal involves a state-wide industry voluntary ban on 25 cultivars of *Berberis thunbergii*. The ban would go into effect July 1, 2010, ending all new production of the cultivars in question and setting a 3 year phase-out period for the industry to sell off remaining stock. The group discussed the proposed phaseout. Heffernan distributed a document with a list of the 25 cultivars and additional details about the ban, and preliminary results from Dr. Brand's research at UConn about the seed production of various cultivars.

Heffernan noted that he received an email from Mehrhoff, asking for more detail on certain aspects of the sale of specific cultivars. Heffernan reported that it will take some time to collect the requested information but estimated that the loss from the ban would be \$2.5 million retail and \$5 million wholesale. Heffernan suggested that sales of other cultivars of barberry might also drop off when the ban goes into effect as more consumers look for other plant species to purchase, and noted that CNLA will make major efforts to involve the big box growers (Walmart, Lowes, etc.) in honoring the voluntary ban.

Larson and Heffernan reported that as more data become available from Dr. Brand and Dr. Li, including research on euonymus, the nursery industry will reevaluate.

Hyatt referenced the document listing other cultivar names not included in the proposed ban, and asked why the line was drawn after the cultivar 'Antares'. Hyatt wanted to know if there was a reason "Antares" was included in the ban but another cultivar like "Green Pygmy" was not. The group discussed the meanings of the numbers in the various columns in the document from Dr. Brand. Heffernan explained that the column highlighted in pink was the seed production of the plants, and Larson explained that the first 3 columns represent seed production over time (1 year, 2 years, 3 years), and the 4th column is either seed production or another calculation getting at seed/invasiveness, seedling vigor, germination rate, seed production, and/or viability. Mehrhoff clarified that all the columns corresponded with seed production in various years in Dr. Brand's research (Column 3 is 2005, and Column 4 is 2006). Larson explained that Dr. Brand made the recommendation about where to draw the line between the proposed banned species and the species not in the ban, and added that the chart is incomplete data. Sullivan explained that as the gradient comes down, it is the tall and medium barberry cultivars that are getting eliminated, and that the dwarf cultivars may be less invasive because of lower seed production and dispersal abilities. Dr. Brand made the recommendation about where to place the cutoff.

Mehrhoff noted that it will be important to take into account the number of plants sold when calculating how many seeds are being produced, for example multiplying the 10,600 seeds produced by Royal Cloak by the number of plants sold.

Sullivan pointed out that the industry was willing to accept that the test plots, which were planted as a mix of cultivars, would represent ideal conditions for cross-pollination and seed production.

Mehrhoff stated that he still felt the legislation stated that plants must be dealt with at a species level and not at a cultivar level.

Magnarelli noted that the seed germination rate is very important as a factor, and asked if the cultivars at the bottom of the list were likely to be market viable. Heffernan responded that the plants at the bottom of the list could become more viable in the market if the other cultivars could not be sold, or the market could leave the species altogether.

Larson noted that other factors that aren't included on this worksheet led to Dr. Brand's recommendations.

Hyatt asked if the invasiveness index, which was used as a basis for Dr. Brand's recommendations, was published somewhere. Larson responded that the index was not published yet because it was not ready, but should be published in December, and stated that the industry wanted to move ahead as soon as possible.

Hyatt asked if the other cultivars remaining in the trade will be reexamined if additional data about them is published in December. House commented that Dr. Brand's data is preliminary but so obvious that the industry was interested in making a unified move forward as soon as possible.

Mushinsky asked how anyone could be sure that the cultivars will not hybridize with the wild green types. Larson responded that the plants would hybridize and can cross pollinate each other. Musgrave responded that the experiment was set up as a cross-pollination experiment, and so would be the worst case scenario. Mushinsky noted that she wanted to be sure, as she has seen firsthand cultivar issues with species such as *Euonymus alatus* "Compactus" producing seedlings in high numbers. Larson stated that that particular cultivar issue has been previously discussed as a possible mix-up and that unfortunately the world is not perfect, but added that he feels the voluntary ban is a big positive step forward.

Blasiak noted that as a homeowner, he sympathizes with Mushinsky because he's been working on controlling invasives on his property, but he feels that "the horse has left the barn" on this issue and others like Japanese knotweed. He says "thumbs up" to the nursery industry for any progress made on reducing the sale invasive species, and noted that the ecology of the plants needs to be understood.

Sutherland asked what type of advice Heffernan was giving the nursery growers about how to give up plants that are worth so much in sales. Heffernan referenced grower Mark Sellew's comment "we're done with 'Rose Glow" and the industry's generally positive response, and said that the industry trusts CNLA and scientists to guide them. Heffernan noted that if, in three years, they find that out-of-state nurseries are not cooperating with the voluntary ban, the nursery industry may end up being the ones to ask the legislature to codify the ban to protect Connecticut growers.

McGowan asked if it could be inferred from this proposal that if these 25 cultivars are removed from sale, interest in other cultivars will increased, and also asked if all new cultivars would be subject to a scrutiny process. Heffernan responded that nursery growers already undertake a lot of risk because production schedules have to be made 3-7 years in advance, and added that the nursery growers aren't likely to undertake the additional risk of planting a new cultivar that is a high seed producer.

Heffernan and Larson repeated concerns that federal agencies were not interested in funding sterile development if the whole species was already banned.

Mehrhoff stated that he was appreciative of all the work done on barberry, but wants to make sure the Council addresses euonymus, which has been increasing on the landscape in recent years. Larson responded that the industry will do something about euonymus, and reminded the group that the industry was acting a year ahead of the research results on barberry, but the results of the euonymus research were not available as the research was still ongoing.

Krivda moved (second: Hyatt) moved to thank the nursery industry and indicate that the Council is appreciative of their efforts on this issue. The motion passed.

8. Update from Invasive Plant Coordinator

Senack provided an update for the group on the work he has been doing over the past few months:

- A new terrestrial invasive plant display has been created for outreach and public events. Multiple copies of the display are being shown at various state events, including the Hartford Flower and Garden Show (estimated 30,000 guests), the UConn Perennial Plant Conference (~400 guests), the UConn Conference for the Home Gardener (~400 guests), and other events, including a Earth Day Celebration in Bethany, CT. Volunteers from the Connecticut Invasive Plant Working Group have also helped to staff the display at events around the state.
- A new aquatic invasive plant display is almost finished. The display will be used at boat shows, trade shows and other events for outreach and education about aquatic invasive plants.
- A new population of mile-a-minute vine has been found in Redding, CT. While this is the first confirmed record of mile-a-minute in Redding, other towns near Redding have been known to have mile-a-minute vine populations for a number of years.
- -The Invasive Plants Council has a new website (www.hort.uconn.edu/cipwg/ipc.html). Senack has also worked with DEP and UConn to add and update invasive plant material on web sites for those organizations.

Heffernan suggested that additional outreach relating to the fact that CGS 15-180 and CGS 22a-381d are now enforceable might be useful. Heffernan mentioned that the Associated Press publishes a review of all the new laws going into effect each October which reaches a wide audience. He can send contact information for the press release to Senack.

9. DEP update

Hyatt reported that the new DEP/UConn Cooperative Agreement will include some work on Aquatic Nuisance Species. The work will be funded by a small federal grant for ANS issues. Additionally, DEP is in the exploratory stages of considering methods to reduce the spread of aquatic vegetation between water bodies and is currently examining the feasibility of localized herbicide applications near boat launches.

Hyatt distributed a document detailing a Request for Proposals for the Ecosystem Management and Habitat Restoration and Long Island Sound License Plate Program Habitat Restoration Grants. The program has up to \$4 million dollars available to non-profits, municipal and other organizations for projects.

Murray updated the group on some of the invasive species removal projects being funded by DEP Supplemental Environmental Project (SEP) funds:

- SEP funds have been used to fund a grant to Bantam Lake to control Fanwort in the Bantam River. The project is underway.
- A grant to the Town of New Milford to fund mile-a-minute vine control. The grant has been returned to DEP with signatures and is working its way through the DEP approval process.

- A grant to the Town of Newtown to fund other mile-a-minute vine removal work there is progressing, but has not yet been returned to DEP. Due to these delays, funds for that project will likely not be disbursed until the end of July.
- The state and federal project for water chestnut surveys in the Connecticut River is also seeing great progress. The paperwork is being processed and DEP hopes that the paper work finished by the end of the fiscal year.

10. Hardy kiwi concerns

Donna Ellis provided the group with news about a recent discovery of hardy kiwi (*Actinidia arguta*) in Avon, CT. Connecticut DOT first reported the plants at one of their worksites and is planning to remove them. Hardy kiwi is a non-native vine with edible fruits. Mehrhoff noted that the plants have been found in other locations, including Roxbury, CT, and added that there is apparently a large population of the plants in the Berkshires area of Massachusetts. Massachusetts is considering re-evaluating the species to determine whether or not to include the species on an invasive or potentially invasive plant list.

Ellis suggested that no action need to be taken at this time. Mehrhoff asked that gardening groups, volunteer groups and others (such as CIPWG) be made aware of this species and asked to let state staff know if they see the plants growing in other locations.

11. Nomenclatural standards

The group discussed the need to determine a single source of the scientific names of plants appearing in Connecticut's legislation. Scientific names sometimes change over time and it was suggested that a list of synonymy be created to clarify the species of plants included on the invasive and banned plants lists. **The Council asked Senack to draft language explaining that the USDA PLANTS database will be the source of the taxonomic names and their synonyms.** The text could be included as a note on the bottom of the invasive/banned plants lists.

Heffernan requested that Senack email the group the link to the USDA PLANTS Database. 6/10/10 Note: Senack reported that the link for the USDA PLANTS Database is www.plants.usda.gov -LS

12. Disposal of invasives

The group discussed the need to develop disposal practices for invasive plants that could be implemented by homeowners. Weeks summarized previous ideas, including the idea of having special invasive plant stickers for bags of yard waste that could help ensure bags were sent to an incinerator instead of a local landfill or brush disposal area.

Magnarelli reported that when CAES has to order the destruction of nursery plants for disease control or other reasons, the best way to deal with the material is to have it incinerated. If a certain threshold of material is reached or exceeded, a permit is needed from DEP, but small scale operations can go in municipal waste streams to be incinerated.

Larson asked if there would be a way to facilitate the process so that a group pulling up a number of bags of material doesn't have to pay to have all that material removed and burned. Mehrhoff asked if there were many incinerators around. Magnarelli stated that there are a number of incinerators, including one in Bridgeport and others elsewhere in the state. Mushinsky also added that there is an incinerator in Wallingford. Ellis noted that it would be important to make the guidelines accessible to homeowners and small groups working on pulling up invasive plants. Blasiak commented that moving invasive material off-site may require homeowners to pack bags or bundle plant material in specific or difficult ways and asked if on-site disposal practices or guidelines could also be developed. The Council asked Senack to collect information about other states' recommendations for the on-site disposal of invasive plants and report back at the next meeting.

13. Donna informed the group that the Connecticut Invasive Plant Working Group (CIPWG) Symposium will be held on October 14, 2010 at the University of Connecticut.

A number of speakers have been invited and the planning process is continuing. The conference usually draws about 400 attendees. Members of the public, state agencies and anyone with an interest in invasive plants are invited to attend.

14. Musgrave thanked the Council and guests for all the progress that has been made.

15. Old and new business

Murray reported to the group about a call she had received from a citizen in Greenwich. The caller was reporting problems with an invasive bamboo. Mehrhoff reminded the group that there are a very large number of species of bamboo with varying traits, and Senack added that he receives a number of questions about bamboo from concerned homeowners. Senack will gather information and provide an update at the next meeting.

Sutherland thanked UConn and DEP for working to manage Senack and the projects so effectively.

Senack will link the announcement for the Long Island Sound program detailed by Hyatt in the minutes.

6/10/10 Note: the link to the DEP page is:

www.ct.gov/dep/lib/dep/long island sound/license plate/funding avaiable.pdf -LS

16. Adjournment

McGowan moved (second: Sutherland) to adjourn the meeting. The Council decided to adjourn at 4:12 pm.

17. The next meeting is scheduled for September 14, 2010, from 2-4 pm at the CAES Valley Lab in Windsor, CT.

Unofficial Summary

Invasive Plants Council
Tuesday March 9, 2010
2 pm, Department of Agriculture, Room G8
Hartford, CT

Council members present: Dave Goodwin, Bill Hyatt, Lou Magnarelli, Phil Prelli *A quorum was not present.*

Others present: Donna Ellis, Nancy Murray, Logan Senack, Dick Shaffer

Due to a lack of a quorum, the meeting was not called to order. The group informally discussed the topics below:

CNLA reaction to the barberry cultivar proposal

Goodwin reported that the major growers have been invited to a meeting on March 17 to further discuss certain barberry cultivar phase-outs. Dr. Mark Brand (UConn) will be present to provide information regarding benchmark numbers for the number of seeds and fruits produced by various cultivars. Goodwin will provide an update at the June Council meeting.

Goodwin also noted concerns about the sale of invasive plants on the internet and by mail order. The group discussed the issue and the difficulties with regulating interstate commerce.

Disposal of invasives

Karen Weeks could not attend today's meeting, and so requested that the disposal of invasives discussion be moved to the June meeting.

Status of legislative efforts

The Department of Environmental Protection and The Nature Conservancy submitted testimony in support of adding Sec. 22a-381d to the list of regulations enforceable by conservation officers. Prelli also presented testimony prepared by Musgrave on behalf of the Invasive Plants Council.

Hyatt reported that the Judges of the Superior Court have not yet responded regarding DEP's request to change Sec. 15-180 from a misdemeanor to a mail-in violation, but DEP is expecting to hear back later in the week.

Nomenclatural standard

The group will discuss nomenclatural standards at the next meeting.

The discussion concluded at approximately 2:20 pm.

The next meeting will take place on Tuesday June 8, 2010 at 2 pm at the CAES Valley Lab in Windsor.

Invasive Plants Council Tuesday September 14, 2010 2 pm, Valley Laboratory Windsor, CT

Council members present: David Goodwin, Bill Hyatt, Paul Larson, Lou Magnarelli, Les Mehrhoff, Mary Musgrave, David Sutherland

Others Present: John Blasiak, Nancy Cohen, Donna Ellis, Bob Heffernan, Nancy Murray, Logan Senack, Penni Sharp

1. Musgrave called the meeting to order at 2:06 pm.

2. The minutes for the 6/08/10 meeting were reviewed

Senack noted that the some copies of the draft minutes had incorrectly numbered pages and will correct the error for the final version. Larson moved (second: Hyatt) to approve the minutes as submitted. **The Council decided to approve the minutes.**

3. Draft of Annual Report

Musgrave distributed a first draft of the annual report. The Council discussed whether or not to include an attachment of DEP accomplishments as in past years. The group decided to include a list of DEP accomplishments. Musgrave asked Senack to look through the old minutes and prepare a list of significant accomplishments. David Goodwin arrived at 2:15 pm.

4. Report from nominating committee

Larson reported that the nominating committee has not met since the last IPC meeting in June, but will meet before the November IPC meeting.

5. Update from Invasive Plant Coordinator

Senack updated the group on some of his recent activities:

- a. An aquatic invasive plant poster display has now been completed. Two copies of the display have been produced. One will be stored in Storrs and the other will be stored in Hartford at DEP. The displays will be used at boat shows, trade shows and other events for outreach and education about aquatic invasive plants. Related organizations may be able to borrow the displays for outreach at other events.
- b. Senack and Ellis thanked Magnarelli for inviting the Connecticut Invasive Plant Working Group (CIPWG) to the 100th annual Plant Science Day in Hamden, CT in August. Ellis and Senack attended with an exhibit and the new terrestrial plant display. The exhibit received many visits from interested attendees.

c. A new population of mile-a-minute vine has been found in Sprague, CT. The discovery of this population raises questions about the distribution of the species in Connecticut because there are no known sources of mile-a-minute within at least 20 miles of the site. The population is large and located on a sand bar in the Shetucket River. This location is of concern because the ability of seeds to float downstream and establish new populations. An undiscovered upstream source population on the Shetucket River is suspected.

d. Senack provided additional information about mail-order nurseries and the prohibited invasive plant list. Currently, there is no mechanism to prevent someone in Connecticut who wants a Connecticut banned invasive plant from ordering it from out of state through mail order. Some companies post notes or warnings in their catalogs or on their websites explaining that some plants may not be shipped to certain states if the sale of the plant is prohibited by state law. Senack will continue to collect information from other states.

6. Disposal of invasive plants

Senack reported back to the group about disposal options for invasive plants. Large incinerators generally only accept waste from municipal waste streams and not from the general public. Some states have published limited information about the disposal of some invasive plants but a comprehensive solution has not been developed.

Senack asked the members of the National Invasive Species Awareness Week listserve for any information they might have on safe and effective disposal of invasive plants. Many listserve members responded with helpful suggestions and ideas. Many listserve members also responded with requests to see the final document once it is complete. Senack will continue working on this project.

7. Language referring to USDA PLANTS database for list nomenclature

Senack was asked to draft language for the invasive plant list that would indicate that the USDA PLANTS database was the source of the scientific names used for the plants on the Invasive Plant List. Senack provided copies of the language (below) to the group. The Council agreed with the language and Senack will add the wording to the invasive plant list so that it can be distributed.

USDA PLANTS Database Language:

"The taxonomic names used by the Connecticut Invasive Plants Council on the Invasive Plant List are consistent with the names used by the United States Department of Agriculture PLANTS database, accessible online at www.plants.usda.gov.

The Council also maintains a list of scientific name synonyms for reference purposes."

8. Hardy kiwi occurrence in Avon

Senack updated the group on the status of the hardy kiwi (*Actinidia arguta*) infestation in Avon and distributed a few photos of the site, which was originally reported by the Connecticut Department of Transportation (DOT). After the June 8 IPC meeting, Senack and several others visited the site to observe the plants. The group found that the plants had covered a large portion of a hillside near a DOT road reconstruction project. The plants were producing a small number of fruits, but the seeds inside did not look like they had fully developed. Senack visited the site again in September to see if the fruits had matured further, but they had already fallen off the plants and were no longer present.

DOT plans to control the plants with a herbicide application as part of their work on the site.

9. Bamboo issue and letter from Attorney General Blumenthal

The Invasive Plants Council received a letter from Atty. Gen. Blumenthal asking the Council to review a bamboo issue in Seymour. Musgrave distributed copies of the letter and a CNLA position paper on bamboo.

Ellis reported that she had received a number of inquiries from property owners in the past who were concerned about bamboo in their neighbors' yards invading their own properties. She, along with several other people, was recently contacted by a property owner in Seymour about a running bamboo that had become a problem in a yard after being planted in a neighbor's yard. The property owner eventually wrote a letter to Atty. Gen. Blumenthal asking if something could be done about the bamboo problem. Ellis provided background about the situation and photos from the property owner about the plants in her yard. The group discussed the situation.

Musgrave asked if there was regulation about public nuisance orders in Connecticut. Ellis responded that she did not know about specific regulations in Seymour, and that the property owner tried to resolve the situation through the town but was unsuccessful.

Blasiak noted that in the material sent by the homeowner, she noted that a two foot deep barrier is needed to control the plant but also said that she only installed a one foot deep barrier. Blasiak suggested that the homeowner already knows the best solution to controlling the plants but has not undertaken it. Murray responded that she thinks the homeowner's frustration is because she wasn't the person who planted the bamboo but it is her yard that is being affected by the plants.

Larson reported that he also spoke to the homeowner and suggested that she take up the case in a civil court. She said that she was looking to take the case to court, but wanted to find an attorney who would take the case as a gratis case.

Murray reported that another person was looking to see if another town would take up the bamboo issue under nuisance orders. The group discussed possible courses of action for aggressively growing woody rhizomatous plants that spread from neighboring properties, including civil lawsuits or public nuisance orders.

Senack distributed general information about bamboo species that are included on invasive plant lists in other states and known bamboo occurrences and issues in Connecticut.

Mehrhoff asked whether the 169 towns of the state would be able to decide individually what they wanted to do about bamboo if the Invasive Plants Council didn't act on the plant. Goodwin also noted that this was a good point. Mehrhoff stated that he thinks the bamboo issue needs further biological evaluation. The Council discussed these issues.

Heffernan said he sees this as an opportunity for the industry to educate customers about how to properly plant bamboo. He said that bamboo is starting to appear as a potentially valuable nursery crop, though not on the same level as barberry and euonymus, as people start to find more uses for it and because it is resistant to deer. Heffernan noted that Mehrhoff may be right in that the only way to stop a town from listing bamboo itself is to list it as potentially invasive at the state level. Larson asked if some sort of notice or tag could be attached to the plant when it is sold that would alert people to the potential for invasiveness. Heffernan said the industry doesn't believe this plant rises to the level of an invasive plant but that a tag or other education campaign could certainly be taken up.

Murray asked if herbicide control worked on bamboos. Heffernan replied that in the industry Roundup is reported to work well for control.

Sutherland asked if there was any other advice the Council could give the Seymour property owner about bamboo, since the Council usually considers only species that spread into natural habitats as having the potential to be listed on the invasive plant list and the bamboos discussed did not seem to fall under that description. Magnarelli suggested that this situation be treated similarly to a situation where one homeowner buys a tree that becomes a nuisance to a neighbor. Blasiak noted that since the Council only can recommend that an item not be sold, even if the Council recommends banning the sale of bamboo it will not help the homeowner who brought up this situation.

Sutherland and Magnarelli reminded the Council that they needed to respond to the Atty. General's letter. Musgrave will draft a response and will send the letter to the group for approval by email vote so that a response can be sent before the November Invasive Plants Council meeting. Murray asked if the information could be sent to the concerned homeowners directly as well.

Mehrhoff asked the group if everyone could avoid using phrases like "invasive plant community" in print, as it creates the impression that there is an adversarial relationship among different groups.

10. CIPWG symposium, October 14, 2010

Ellis distributed brochures and programs for the Connecticut Invasive Plant Working Group (CIPWG) Symposium, which will be held at UConn on October 14, 2010. Ellis provided the group with a summary of the planned events for the day, which will include a keynote presentation by Bernd Blossey from Cornell University and other guest

speakers. Musgrave will also give an update of the activities of the Invasive Plants Council over the last two years.

11. Other old or new business

a. Enforcement of the invasive plant law

Public Act 10-20, which gives DEP Environmental Conservation Officers the authority to enforce Conn. Gen. Statute 22a-381d, becomes effective on October 1, 2010. Hyatt described a few instances this summer where cultivars of species listed as invasive by the Invasive Plants Council and banned by the Connecticut legislature were still being sold in the state. In these instances, DEP worked with CNLA via Bob Heffernan to try to convince the sellers to stop selling those species. Hyatt noted that this is the mechanism DEP plans to use in future instances instead of rushing to enforcement and fines. Hyatt also noted, however, that if someone says "no" to Heffernan's request to stop selling a banned plant, then there is currently no effective way to enforce the law. Hyatt proposed modifying section 22a-381d of the Connecticut General Statues (CGS) to give DEP the authority, in consultation with the Invasive Plants Council, to implement regulations enabling the sale of specific sterile cultivars of prohibited species in Connecticut. For prohibited species, only those cultivars so authorized would be legal for sale. Hyatt included a description of the problem and recommended solution in a document distributed to the Council, and added that this would also be consistent with similar invasive species laws proposed in New York State.

Magnarelli indicated that the group usually gets the backing of the nursery industry before moving forward on an unclear issue like this one. Hyatt said from previous conversations he understood that Magnarelli thought cultivars were not legally banned. Hyatt explained that he wanted to address both the concerns for the environment and the concerns of the industry.

Blasiak suggested that if someone had passed a law banning the sale of all dogs in the state, it would not be legal to sell a certain type of dog in the state just because it was a specific kind of dog. Magnarelli stated that he thinks the statue is silent on this issue. Goodwin asked what would happen if someone were to get arrested for this issue and if the charge would hold up in court. Hyatt expressed concern that a law that is unclear may not be enforceable in a court, that the October 5, 2007 letter from Magnarelli to Attorney General Blumenthal identified the issue as unclear, and that the January 15, 2008 reply from Attorney General Blumenthal assigned responsibility for clarifying interpretation of the law to the Invasive Plant Council. Musgrave noted that the barberry cultivars recently addressed at the June 8 meeting are not on the banned invasive list and so would not be affected by this proposal.

Heffernan described a situation where a person who runs a well-known organic nursery in the state was selling a variegated cultivar of Japanese knotweed this summer. The seller has never seen the variegated form of knotweed spread and Heffernan said this cultivar behaves differently from its parent species and is not invasive. Heffernan suggested that one problem with Hyatt's recommendation is that he thinks it would take years to prove that some cultivars are sterile. Heffernan also stated that he felt the word sterile goes too far; he felt the change should ban specific cultivars rather than allowing specific cultivars, because cultivars are produced so often and so frequently. Hyatt replied that the word "sterile" could be changed to something like "safe" to allow greater discretion. Hyatt also acknowledged that this proposal would place the burden of proof on those who wish to demonstrate that a cultivar is safe.

Hyatt clarified that the change would only apply to cultivars of species that are banned by the legislature and would provide an opportunity for cultivars that could be shown to be sterile to still be sold in the state. Heffernan asked about the process that would be needed to get a sterile cultivar approved for sale. Hyatt responded that one interpretation of where things stand now is that no cultivars of banned plants can be sold, so this would be an opportunity for the industry to have sterile cultivars back in sale going forward. Sutherland noted that a number of plants had already been excluded from a recommendation to be banned because of their economic importance. Sutherland further stated that his preference is for the Invasive Plant Council to take the position that all cultivars of banned plants are illegal without exception.

Mehrhoff stated that he still thinks the law only focuses on the species level.

Goodwin asked if there was an appeal process for cultivars of banned plants. Hyatt suggested that the process would need to rely on the best available scientific evidence to determine if a cultivar was safe. Details on the process would have to be worked out.

Musgrave suggested that the group revisit this issue at the November meeting.

Magnarelli left the meeting at 3:57 pm.

Hyatt asked that this issue be resolved as soon as possible because DEP's enforcement authority takes effect October 1, 2010. Heffernan will bring DEP's proposal to the CNLA board and will have a position from the industry at the next meeting.

Murray noted that she values the relationship with the nursery industry and appreciates the fact that she can call on Heffernan for assistance on these issues. Murray also reminded everyone that the goal is not fines from enforcement action; the goal is protecting the environment.

b. New business:

The group briefly discussed issues about the spread of invasive plants along roadsides and the Department of Transportation's involvement with invasive plants. Mehrhoff agreed that working with DOT is a great idea.

12. The next meeting is scheduled for November 9, 2010, 2-4 pm, at the CAES Valley Lab in Windsor, CT.

13. Adjournment

Mehrhoff moved (second: Sutherland) to adjourn the meeting. The Council decided to adjourn the meeting at 4.06 pm.



Office of The Attorney General State of Connecticut

August 9, 2010

Dr. Mary Musgrave, Chair Invasive Plants Council Department of Plant Science University of Connecticut 1376 Storrs Road, Unit 4067 Storrs, Connecticut 06029

Dear Dr. Musgrave:

I am writing to request a review by the Invasive Plants Council of the attached documents which I received from Caryn Rickel of Seymour, Connecticut and consideration of designating the running bamboo tree as an invasive species.

As the attached documents indicate, the running bamboo aggressively grows large rhizomes underground which can cause significant damage to affected property and plant life. Some cities have defined this plant as a nuisance.

I appreciate the council's attention to this request.

Very truly yours,

Richard Blumenthal

RB/RFK/sk

Attachments



University of Connecticut College of Agriculture and Natural Resources

Department of Plant Science

September 25, 2010

The Honorable Richard Blumenthal Attorney General Office of the Attorney General 55 Elm Street P.O. Box 120 Hartford, CT 06141-0120

Dear Mr. Blumenthal:

I am writing today in my capacity as chair of the CT Invasive Plants Council, in response to your letter of August 9, 2010, in which you asked the Council to consider designating running bamboo as an invasive species. The Council considered this matter during its recent meeting on September 14.

The aggressive growth of bamboo in landscape installations requires special care to contain the growth of the rhizomes by means of a substantial barrier material. The CT Green Industry is mounting a special trade and public education campaign on bamboo to avoid problems such as Ms. Rickel's in the future.

The Council was of the opinion that running bamboo does not meet the definition of an invasive plant, because it does not occur except in immediate proximity to a human planting of it. The plants of concern to Ms. Rickel do not appear to be spreading unaided through minimally managed areas, which is a key hallmark of an invasive plant.

Thank you for calling this matter to our attention.

Sincerely,

May O Murguer Mary E. Musgrave Professor and Head

Department of Plant Science and Landscape Architecture

Chair, Connecticut Invasive Plants Council

An Equal Opportunity Employer and Program Provider

1376 Storrs Road, Unit 4067 Storrs, Connecticut 06269-4067

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Invasive Plants Council Tuesday Nov. 9, 2010 2 pm, Department of Agriculture Hartford, CT

Council members present: George Krivda (for Phil Prelli), Bill Hyatt, Paul Larson, Lou Magnarelli, Mary Musgrave, David Sutherland

Others present: Ellen Bender, John Blasiak, Pat Bresnahan, Donna Ellis, Bob Heffernan, Nancy Murray, Logan Senack, Karen Weeks

1. Musgrave called the meeting to order at 2:06 pm.

2. The minutes for the 9/14/10 meeting were reviewed

Musgrave noted that the results of the email vote approving the letter to Atty. Gen. Blumenthal regarding bamboo should be added to the minutes. The group also decided to include the letter from Atty. Gen. Blumenthal and the response to the letter from the Invasive Plants Council. Hyatt moved (second: Magnarelli) to approve the minutes with the discussed additions. **The Council decided to approve the minutes with the additions.**

3. Report on CIPWG Symposium

Ellis reported that the 5th biennial invasive plant symposium had attracted 380 registered attendees for a day of presentations, updates, and discussions about invasive plants. Reviews of the event by attendees were positive and Ellis thanked Musgrave for providing an update of the Council's activities to the audience. The event was held Oct. 14, 2010 at the University of Connecticut.

4. Report from Nominating Committee

Larson announced that the nominating committee (David Sutherland and Paul Larson) nominated Bill Hyatt to serve as the next Council Chair as of Jan. 1, 2011. The nominating committee did not select a nominee for Vice-Chair. The group discussed how to nominate and elect a future Vice-Chair so that the selection could be included in the year's annual report. The Council decided to hear the report from the nominating committee and vote by email ballot before the annual report was finalized.

Hyatt left the room at 2:22 pm.

Sutherland moved (second: Larson) to nominate Hyatt as the next Chair for a two-year term beginning January 1, 2011. **The Council voted 5-0 to elect Hyatt as the next Chair.** *Hyatt entered the room at 2:25 pm.*

Musgrave congratulated Hyatt on his election.

5. Draft annual report

Musgrave detailed the layout of the annual report and provided a draft copy of the cover letter to the group. The report will include several attachments:

- a. Names and contact information for Council members
- b. Minutes for all meetings from the past year, including this 11/9/10 meeting. Musgrave noted that the date of the next IPC meeting (12/14/10) will be during final exam week at the University and it will be difficult to get the copies of the annual report printed because of the volume of exams that will have priority. This will necessitate that the minutes for this 11/9/10 meeting be approved by email ballot as soon as possible so the report can be printed before the next meeting.

11/29/10 Note: Larson submitted minor revisions to the minutes of the 11/9/10 meeting by email on 11/27/10. The revised minutes were distributed to the Council. **The Council voted 5-0-4 to approve the minutes as revised by Larson** by email vote on 11/29/10. -LS

- c. The letter from Atty. Gen. Blumenthal regarding bamboo and the response to the AG's office from the IPC.
- d. Appropriations Committee testimony
- e. Environment Committee testimony
- f. Addition to the invasive plant list (text designating USDA PLANTS database as source of scientific names used in CT Invasive Plant Lists)
- g. List of DEP invasive plant program accomplishments

6. DEP Accomplishments attachment for annual report

Murray provided copies of the DEP accomplishments document to the group. This document will be included in the annual report. The document details accomplishments of various DEP programs relating to invasive plants, including Supplemental Environmental Project (SEP) funded projects to remove invasives, establishment of a part-time ANS Coordinator, status and accomplishments of the Invasive Plant Coordinator, and other control projects undertaken by DEP.

Blasiak asked why white ash was included on the list of invasive plants controlled at Tunxis State Forest (Hartland). Murray will investigate and submit a revised copy for the annual report if needed. The plants may have been included for a habitat restoration project or for another reason.

Murray introduced Pat Bresnahan (UConn), who will be working as the part-time ANS coordinator under a one-year cooperative agreement between DEP and UConn.

7. Discussion of Hyatt proposal on cultivars

Hyatt distributed a handout from the last meeting and discussed Public Act 10-20, which came into effect Oct. 1, 2010 and allowed for enforcement of the invasive plant law by DEP Environmental Conservation Officers.

Hyatt noted a few instances this summer where some Connecticut businesses were selling plants that are prohibited by law. Hyatt also noted a difference in opinions among Council members regarding cultivars of listed banned species. In the cases where prohibited plants were being sold, Hyatt spoke with Magnarelli and contacted Heffernan to resolve the issue on a case-by-case basis without legal action. Because the status of enforcement is unclear, Hyatt noted that actual enforcement would be difficult if the grower or seller chose not to comply.

Hyatt distributed a proposal to modify Section 22a-381d of the Connecticut General Statutes to include a subsection that gives DEP the authority, in consultation with the Invasive Plants Council, to implement regulations enabling the sale of specific cultivars of prohibited species in CT. A draft of the proposed change reads:

"(NEW)(g) The Commissioner may adopt regulations in consultation with the Invasive Plant Council that authorize the legal sale in Connecticut of specific sterile cultivars of banned invasive species listed in (a) and (b). For the purposes of this section "sterile" means that a cultivar has been determined to be unable to establish and sustain a wild population based on the best available scientific evidence."

Based on talks with Heffernan, Hyatt suggested that two wording changes could be made: change "consultation" to "concurrence" and change "sterile" to "safe". Blasiak asked why the word used would be "safe" instead of "non-invasive" because "safe" is very subjective. Hyatt responded that "non-invasive" could be considered as an alternative wording.

Blasiak asked how the system would deal with hybrids where one parent was a listed species. Magnarelli suggested taking each scenario on a case-by-case basis. Magnarelli suggested that the industry did not want bad publicity and that self-policing would be the best way to proceed. Hyatt repeated his concerns that this method would make the new enforcement authority meaningless. Magnarelli suggested there is a difference in enforcement philosophy between agencies. Hyatt reiterated that non-legal action would still be the first approach. However, Hyatt also noted that it was the Council that advocated the need for enforcement authority and proposed the necessary statutory changes. Hyatt argued that this effort will be wasted if the Council fails to agree that prohibited species are, in fact, illegal. Hyatt also pointed out that the proposal would give DEP and the IPC the authority to "legalize" specific non-invasive cultivars of prohibited species which should benefit the industry by providing clarity on legal status.

Musgrave said that the only plant with cultivars that was currently banned was Japanese knotweed (*Fallopia japonica*). Murray added that this summer there were also instances where purple loosestrife (*Lythrum salicaria*) and other plants were being sold.

Musgrave said dealing with individual species doesn't make much sense since the standard unit of measure is at the cultivar level. Musgrave feels the same as Magnarelli: allowing the industry to self-police is the best option. Magnarelli suggested maintaining a dialogue with people to let

them know that the plants were invasive. Sutherland asked if that meant the group wanted to leave the situation the way it currently is.

Hyatt noted that most of the plants that are currently on the banned list do not currently have any cultivars for sale.

Magnarelli said that he was ok with that proposal for the law as Hyatt just suggested, but suggested again that the law is silent on this issue. Murray said that Hyatt's proposal would be a way of resolving the issue. Larson said he understood Hyatt's scenario, but suggested that allowing the industry to self-police would still be effective. Sutherland suggested that without the banned law being modified as Hyatt suggested, the situation would be as if there was no banned list at all. Hyatt agreed that approaching things on a case-by-case basis is a correct approach, but problems will arise if someone says that they will not voluntarily comply.

Musgrave suggested it would make the enforcement position weaker if the change was included in the legislation. Hyatt stated that the enforcement position could not be made weaker because the current law is unenforceable pending resolution of the cultivar issue. Magnarelli reiterated that enforcement has always worked on a case-by-case basis. Hyatt stated that there is a difference between enforcement and voluntary compliance and that voluntary compliance will always be the first option but should not be the only option.

Blasiak interjected that a species is defined by a taxonomist. The group discussed cultivars and their place in plant taxonomy. Blasiak asked if the current legislation meant that any harmful cultivars could be banned. Magnarelli agreed that under the current law, if a cultivar was identified as a problem plant, it could be banned.

Larson looked at the banned list again and found that to his knowledge, only two plants on the banned list have cultivars that might be offered for sale in Connecticut. They are Japanese honeysuckle (*Lonicera japonica*) and the Japanese knotweed (*Fallopia japonica*). Larson reminded the group of Nancy DeBrule's testimony that the variegated knotweed she was selling was not invasive. Larson noted that Nancy is a very knowledgeable person who hasn't seen the variegated form of the plant become invasive.

Murray brought up dame's rocket (*Hesperis matronalis*), Donna asked about goutweed (*Ageopodium podgraria*) and true forget-me-not (*Myostosis scorpiodes*). Krivda suggested coming back to this discussion at the end of the meeting if there was time. Hyatt suggested tabling the discussion for a future meeting. Krivda moved (Larson: second) to bring up the discussion at a later meeting. **The Council decided to discuss this issue at a future meeting.**

Murray reiterated her previous thanks to Bob Heffernan of CNLA for being so willing to work with DEP on issues that do arise.

8. Legislative initiatives

Sutherland noted that the number of bills passed in that past two years by the state legislature has been very low, and noted that any proposals with accompanying with fiscal issues would likely be extremely hard to get through.

9. Carry forward issues

Musgrave outlined issues that should be carried into next year:

- a. Musgrave suggested inviting Yi Li (UConn) to discuss his triploid *Euonymus*
- b. *Euonymus* in the woods: Musgrave suggested that it was unclear whether or not the *Euonymus* was still being sold—earlier in the fall, Mehrhoff emailed the group asking them to look for *Euonymus* as the leaves changed color
- c. partnerships with CT DOT highway department
- d. safe and low cost disposal methods of invasives
- e. Sutherland also brought up the current status of the *Euonymus alatus* 'Compactus' at UConn and whether it was still present or producing high numbers of seeds
- f. Hyatt's cultivar proposal

10. Other old or new business

- a. The group discussed the meeting schedule for future years. Senack will coordinate with Hyatt to develop a list of dates and locations for future meetings. A request was received by Musgrave to move future meetings to a location in Hartford so that people working on legislative issues would be able to more easily attend. Senack will forward the meeting schedule to Krivda to make sure that the Dept. of Agriculture conference room will be available on the meeting dates.
- b. Council members will vote on draft minutes from today's 11/9/10 meeting by email ballot.
- c. Murray will send Musgrave the DEP accomplishments document with the previously discussed edits to be included in the annual report.
- d. The vote for Vice-Chair will also be held by email ballot and included in the annual report.

Larson moved (second: Hyatt) to approve the draft of the annual report, with the addition of the approved minutes from today's meeting and also the DEP accomplishments document. **The Council decided to approve the draft of the annual report.**

11/29/10 Note: The nominating committee (Sutherland and Larson) nominated Magnarelli to serve as Vice-Chair for a two-year term beginning Jan. 1, 2011, via email on 11/27/10. On 11/29/10, The Council voted 8-0-1 to elect Magnarelli as the next Vice-Chair. In the event that Hyatt needs to step down as Chair, Magnarelli would not serve as Chair for the remainder of the term, but would serve as Chair only until the Council identified a new Chair. -LS

11. The next meeting is scheduled for Tuesday, December 14, 2010, 2-4 pm, at the Dept. of Agriculture Conference Room in Hartford, CT.

12. Adjournment

Sutherland moved (second: Larson) to adjourn the meeting. **The Council decided to adjourn at 3:39 pm.**



August 9, 2010

Dr. Mary Musgrave, Chair Invasive Plants Council Department of Plant Science University of Connecticut 1376 Storrs Road, Unit 4067 Storrs, Connecticut 06029

Dear Dr. Musgrave:

I am writing to request a review by the Invasive Plants Council of the attached documents which I received from Caryn Rickel of Seymour, Connecticut and consideration of designating the running bamboo tree as an invasive species.

As the attached documents indicate, the running bamboo aggressively grows large rhizomes underground which can cause significant damage to affected property and plant life. Some cities have defined this plant as a nuisance.

I appreciate the council's attention to this request.

Very truly yours,

Richard Blumenthal

RB/RFK/sk

Attachments

To: Richard Blumenthal
Office of Attorney General

Date:

July 29, 2010

From: Caryn Rickel

13 Edgehill Terrace, Seymour, CT 06483

URGENT RUNNING BAMBOO SEYMOUR CT 7 Properties, HELP

Please

I am writing out of desperation. I have checked and in Connecticut this problem is almost virtually unknown, and unsolvable. I live at 13 Edgehill Terrace, Seymour, CT.. And also own the 2 houses adjacent to me. My neighbor: Michael Komaromi of 10 Sunset Dr, Seymour, CT had planted yellow grove Running Bamboo on his property line approx. 11 years ago. It looked like 6 single cornstalks at the time. Well it grew fast and right away I had rhizomes that looked like arms coming up all over...it very quickly spread within 20 feet of my lot. Later in the year 2005 I hired a landscaper to design a gorgeous blue stone patio in that corner. He was amazed at all the bamboo and knew it needed a barrier, since the original planter did not know to do it..

He installed a 12 inch steel. Well 5 years later ... 2010...it's a horror show.

I will try to use as few words as I can.

It has spread to his neighbors yard and is now all coming into the property I own next door. Down the street he gave some to someone, who has since moved But it is invading 3 properties badly there as well. And we own one of those too!! So far it has come up through a new asphalt driveway. It has made it under a sidewalk and driveway to the foundation and central a/c unit of the house.

My garden, which is my life and hobby is destroyed. I can go on and on. Well I looked it up on the internet and was horrified. It is the most non -native invasive Fast growing plant in the world. In Tokyo you need written affidavit of permission its planted within your neighbors property as it knows no property lines. It was the first plant to survive the Hiroshima atomic bomb. There is ; lots of precedent. the best is the PDF File I was lucky enough to receive when I actually phoned Janine Goffer Of Loma Linda, Calif. I found this very valuable and took the time to attach it. She had by no means the invasion that we have. But she was successful and the town amended its municipal code. It is indeed a nuisance, trespass, and encroachment of ones land. Not to mention my free use of my property. The person was ordered to remove it. They were not grandfathered as the invasion by the rhizomes is ongoing and current. It also is considered 1 plant with 1 owner even though the rhizomes are everywhere. The next door neighbor whose whole back yard is invaded, just purchased the property this past June 2010. He is moving in this August. They did not disclose it, and he is loaded with it. It is invading my next door property. Although my opinion is it is not his plant but the original planter of this: Michael Komaromi of 10 Sunset Terrace, Seymour, So to summarize there are 7 properties all residential under advanced invasion now, and Sadly I own three !! The three at the end of the street I coordinated with the owners, We are using the cut., cut, cut method, which will starve the root, through lack of sunlight. We know it will take diligence and most likely 3 years. My husband after Work is doing for everyone there as they cant handle it. The rhizomes pop up overnight

And grow 12 inches in one day. He has no choice as it is up to the septics and leaching fields on all 3 of our properties. I do not have another season. This weekend we will Dig rhizomes all weekend, and all my flower beds will be ripped apart. The neighbor Who brought this into the neighborhood does not care at all. He has called the police And wants no information! I did try. I offered in writing to him to do all the cutting By our houses as these are very mature groves, and my husband would do all the dump runs which would be many. I even offered to pay in full for replacement privacy shrubs. like Arborvite or hemlock or even clumping bamboo which does not run. He told me his brother gave him the bamboo and its sentimental and he does not care. His wife at first lied to me and stated they spent thousands on the plants and she wants her money back, well she forgot to tell her husband the lie so he wrote a letter and advised his brother gave them to him They are now cutting canes fast to destroy evidence. I can smell the blades burning. He says he is simply putting a 12 inch barrier in. That is fruitless.. 12 inches is not enough and I already had one like this. IT only allows another 5 years to pass and then its worse. The barrier needs constant root pruning twice a year to catch all the rhizomes. He would never be able to do that..its just a stall technique. This is a mature grove now and it's a monster plant with monster rhizomes. My shovel wont even lift the weight of some of them!

He has called police 2 times. They know I have done nothing The chief came and brought A detective with camera, and they were astonished. I explained this is unregulated here. And the town has very limited resources on making amendments. Its very slow even if it can be done. I spoke with the CT DEP..and they said they are receiving many calls on this problem. They know it needs to get on the invasive list, they asked me to copy them on my struggle The town stated they have had layoffs at the CT DEP and it would be weeks before they would even respond. I have 3 septic and leaching fields in danger. I cannot wait. I see thick rhizomes all through my lawn!! I cant spend my retirement digging. I am not able to mentally deal with this. My gardens where my life. Please read all of this especially the PDF file from Calif. Loma Linda.

I will await your reply. Please feel free to contact me with questions. I have spent hours researching this and know just about all there is on it. I have all the files saved on my computer.

I was told by my attorney my real estate value is greatly reduced. The internet supports that. I even questioned the town, that if they know these properties have this invasion Should the deeds show it to protect the next buyer? Because at 8 Sunset Terr, they knew and snuck the sale through. I walked over to the previous owner and said your bamboo is all coming to my backyard ..she replied we are in binder we cant do anything to jeopardize the sale..so the notes you give us for the next owner will just go in the trash.

I will send an email also to you today, as the secretary advised me to do. I thank you in advance.

Sincerely,

Caryn Rickel

Caryn Rickel



University of Connecticut College of Agriculture and Natural Resources

Department of Plant Science

September 25, 2010

The Honorable Richard Blumenthal Attorney General Office of the Attorney General 55 Elm Street P.O. Box 120 Hartford, CT 06141-0120

Dear Mr. Blumenthal:

I am writing today in my capacity as chair of the CT Invasive Plants Council, in response to your letter of August 9, 2010, in which you asked the Council to consider designating running bamboo as an invasive species. The Council considered this matter during its recent meeting on September 14.

The aggressive growth of bamboo in landscape installations requires special care to contain the growth of the rhizomes by means of a substantial barrier material. The CT Green Industry is mounting a special trade and public education campaign on bamboo to avoid problems such as Ms. Rickel's in the future.

The Council was of the opinion that running bamboo does not meet the definition of an invasive plant, because it does not occur except in immediate proximity to a human planting of it. The plants of concern to Ms. Rickel do not appear to be spreading unaided through minimally managed areas, which is a key hallmark of an invasive plant.

Thank you for calling this matter to our attention.

Sincerely,

May O Murguer Mary E. Musgrave Professor and Head

Department of Plant Science and Landscape Architecture

Chair, Connecticut Invasive Plants Council

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To: Appropriations Committee, Connecticut General Assembly

From: Mary E. Musgrave

Professor and Head, Department of Plant Science & Landscape Architecture, UConn

Co-Director, New England Invasive Plant Center and Chair, Connecticut Invasive Plants Council

Email mary.musgrave@uconn.edu; phone (860) 486-2925

Date: February 17, 2010

Written testimony RE: DEP budget - "keep-alive" for Invasive Plants Program, \$100,000

Senator Harp, Representative Geragosian, and members of the Appropriations Committee: My name is Mary Musgrave, speaking to you today on behalf of the Connecticut Invasive Plants Council. This Council was formed in 2003 pursuant to Connecticut General Statutes 22a-381 through 22a-381d, as advisory to the Environment Committee on the complex issue of invasive plants in Connecticut. Non-native invasive plants threaten Connecticut's natural areas, including recreational waterways, diminishing quality of life as well as property values.

The Invasive Plants Council, which I chair, is comprised of 9 members representing the nursery industry, public and private environmental protection organizations, the Department of Agriculture, the CT Agricultural Experiment Station, and the College of Agriculture and Natural Resources at UConn. The Council has met 8-10 times a year for 7 years, providing guidance on the state's invasive plant issues. We applaud the \$500,000 appropriation that was previously made for DEP to implement an educational outreach, inspection, and regulatory compliance program for the state.

The Council understands the gravity of the State's financial situation. Until the state budget improves enough to re-institute the full program, we advocate a "keep-alive" annual budget of \$100,000, to preserve the outreach, inspection and regulatory structure that has been developed at DEP for addressing the Invasive Plant problem. An annual budget of \$100,000 would allow retention of the Invasive Plant Coordinator as well as funding the necessary inspections at the state's pet shops (Department of Agriculture) and nurseries (CT Agricultural Experiment Station). These core functions are vital to the environmental and economic interests of the State. At DEP, the Invasive Plant Program Coordinator coordinates the work of agency staff and hundreds of volunteers across the state who are working to control the spread of invasive plants that are devastating natural habitats. In the absence of this core program funding, there would be no mechanism to enforce of the plant bans that are in effect in the state. Therefore the CT Invasive Plants Council respectfully requests that the committee reinstate a minimum of \$100,000 to DEP's budget, for continuation of the core functions of the Invasive Plant Program.

I would like to thank the Appropriations Committee for its past support, its continued interest in invasive plants as one of many important environmental concerns, and for the opportunity to submit this testimony.





To: Committee on Environment, Connecticut General Assembly

From: Mary E. Musgrave

Professor and Head, Department of Plant Science, University of Connecticut

and Chairman, Connecticut Invasive Plants Council and co-director, New England Invasive Plant Center

Email mary.musgrave@uconn.edu; phone (860) 486-2925

Date: March 8, 2010

Written testimony RE:

Raised Bill No. 5320, "An Act Concerning the Enforcement of Prohibited Actions Concerning Certain Invasive Plants"

Senator Meyer, Representative Roy, and other members of the Environment Committee: My name is Mary Musgrave, and I want to thank you for the opportunity to present testimony in support of Bill No. 5320, "An Act Concerning the Enforcement of Prohibited Actions Concerning Certain Invasive Plants." My purpose today is to explain the reasons the Connecticut Invasive Plants Council recommends adoption of this bill and to encourage your support of the language within it.

The Invasive Plants Council was established and operates pursuant to Connecticut General Statutes 22a-381 through 22a-381d and has the following responsibilities: developing and conducting initiatives to educate the public about the problems created by invasive plants in lakes, forests and other natural habitats; publishing and updating a list of invasive or potentially invasive plants; and supporting state agencies in conducting research into invasive plant control, including the development of new non-invasive plant varieties and methods for controlling existing species.

As Chairman of the Invasive Plants Council I represent 9 appointed members who work in the government, the nursery industry, and environmental groups. Much of the time spent by the Council has been devoted to discussing how the current laws can be implemented. Inspection roles for the Dept. of Agriculture (for aquatic plants being sold in pet shops) and CT Agricultural Experiment Station (for plants in nurseries) are now clearly described by legislation. The situation governing inspections for aquatic plants being carried by boats and boat trailers has been less clear. This year's bill, no. 5320, is critical because it gives conservation officers the power to enforce the state's Invasive Plant laws (22a-381 through 22a-381d). This enforcement piece will be especially helpful in preventing the spread of aquatic invasive plants from waterway to waterway.

I would like to thank the Environment Committee for your continued interest in invasive plants as one of many important environmental concerns, and for your support of prior recommendations from the Invasive Plants Council.

Language specifying USDA PLANTS Database as source of scientific names on CT invasive plant list:

The taxonomic names used by the Connecticut Invasive Plants Council on the Invasive Plant List are consistent with the names used by the United States Department of Agriculture PLANTS database, accessible online at www.plants.usda.gov.

The Council also maintains a list of scientific name synonyms for reference purposes.

CONNECTICUT INVASIVE PLANT LIST September 2010

Connecticut Invasive Plants Council

Ordered by Scientific Name

Statement to accompany list -- January 2004: This is a list of species that have been determined by floristic analysis to be invasive or potentially invasive in the state of Connecticut, in accordance with PA 03-136. The Invasive Plants Council will generate a second list recommending restrictions on some of these plants. In developing the second list and particular restrictions, the Council will recognize the need to balance the detrimental effects of invasive plants with the agricultural and horticultural value of some of these plants, while still protecting the state's minimally managed habitats.

In May 2004, Public Act 04-203 banned a subset of the January 2004 list making it illegal to move, sell, purchase, transplant, cultivate or distribute banned plants. Effective July 1, 2009, Public Act 09-52 removed the ban on *Pistia stratiotes*.

@ column indicates growth form or habitat: A = Aquatic & Wetland; G = Grass & Grass-like; H = Herbaceous; S = Shrub; T = Tree; V = Woody Vine

Explanation of symbols after Common Name:

- (P) indicates Potentially Invasive (all other plants listed are considered Invasive in Connecticut)
- * denotes that the species, although shown by scientific evaluation to be invasive, has cultivars that have not been evaluated for invasive characteristics. Further research may determine whether or not individual cultivars are potentially invasive. Cultivars are commercially available selections of a plant species that have been bred or selected for predictable, desirable attributes of horticultural value such as form (dwarf or weeping forms), foliage (variegated or colorful leaves), or flowering attributes (enhanced flower color or size).

BAN column indicates prohibited status: Y= banned under CT Gen. Stat. 22a-381d N/A= not banned

^ indicates species that are not currently known to be naturalized in Connecticut but would likely become invasive here if they are found to persist in the state without cultivation. The taxonomic names used by the Connecticut Invasive Plants Council on the Invasive Plant List are consistent with the names used by the United States Department of Agriculture PLANTS database, accessible online at www.plants.usda.gov. The Council also maintains a list of scientific name synonyms for reference purposes.

COMMON NAME	@	SCIENTIFIC NAME	SYNONYMS	BAN
Amur maple (P)	Т	Acer ginnala L.		N/A
Norway maple*	Т	Acer platanoides L.		N/A
Sycamore maple (P)	Т	Acer pseudoplatanus L.		Y
Goutweed	Н	Aegopodium podagraria L.		Y
Tree of heaven	Т	Ailanthus altissima (Mill.) Swingle		Y
Garlic mustard	Н	Alliaria petiolata (M. Bieb.) Cavara & Grande		Y
False indigo (P)	S	Amorpha fruticosa L.		Y
Porcelainberry*	V	Ampelopsis brevipedunculata (Maxim.) Trautv.		N/A
Hairy jointgrass (P)	G	Arthraxon hispidus (Thunb.) Makino	Small carpgrass	Y
Common kochia (P)	Н	Bassia scoparia (L.) A.J. Scott	Kochia scoparia; Fireweed; Summer cypress	Y
Japanese barberry*	S	Berberis thunbergii DC.		N/A
Common barberry	S	Berberis vulgaris L.		Y
Drooping brome-grass (P)	G	Bromus tectorum L.	Cheatgrass	Y
Flowering rush (P)	Α	Butomus umbellatus L.		Y
Fanwort	Α	Cabomba caroliniana A. Gray		Y
Pond water-starwort (P)	Α	Callitriche stagnalis Scop.		Y
Narrowleaf bittercress	Н	Cardamine impatiens L.		Y
Japanese sedge^ (P)	G	Carex kobomugi Owhi		Y
Oriental bittersweet	V	Celastrus orbiculatus Thunb.	Asiatic bittersweet	Y
Spotted knapweed	Н	Centaurea stoebe (L.)	Centaurea biebersteinii; Centaurea maculosa	Y
Canada thistle (P)	Н	Cirsium arvense (L.) Scop.		Y
Black swallow-wort	Н	Cynanchum Iouiseae Kartesz & Ghandi	Cynanchum nigrum; Vincetoxicum nigrum	Y
Pale swallow-wort	Н	Cynanchum rossicum (Kleo.) Borhidi	Vincetoxicum rossicum	Y
Jimsonweed (P)	Н	Datura stramonium L.		Y
Brazilian water-weed (P)	Α	Egeria densa Planchon	Anacharis; Egeria	Y
Common water-hyacinth^ (P)	Α	Eichhornia crassipes (Mart.) Solms		N/A
Russian olive (P)	S	Elaeagnus angustifolia L.		Y
Autumn olive	S	Elaeagnus umbellata Thunb.		Y
Crested late-summer mint (P)	Н	Elsholtzia ciliata (Thunb.) Hylander	Elsholtzia	Y
Winged euonymus*	S	Euonymus alatus (Thunb.) Sieb.	Burning bush	N/A
Cypress spurge (P)	Н	Euphorbia cyparissias L.		Y
Leafy spurge	Н	Euphorbia esula L.		Y
Glossy buckthorn	S	Frangula alnus Mill.	Rhamnus frangula; European buckthorn	N/A
Slender snake cotton	Н	Froelichia gracilis (Hook.) Moq.	Cottonweed	Y
Ground ivy (P)	Н	Glechoma hederacea L.	Gill-over-the-ground; Run-away robin	Y
Reed mannagrass (P)	G	Glyceria maxima (Hartm.) Holmb.	Tall mannagrass	Y
Giant hogweed (P)	Н	Heracleum mantegazzianum (Sommier & Lavier)		Y
Dame's rocket		Hesperis matronalis L.		Y
Japanese hops (P)	Н	Humulus japonicus Sieb. & Zucc.		Y

Omamental jewelwood (P) H Impaiens glandulifiers Royle Tall impaiens A Mis pseudocours L Yellow flag ins Peternial pepperweed H Loppidium latifolium L. Tall pepperwort Desire Private (P) S Ligustrum ovalifolium Hessik. California privat (P) S Ligustrum ovalifolium Hessik. California privat (P) S Ligustrum ovalifolium Hessik. Suprema privat (P) S Ligustrum ovalifolium Hessik. Marcrovia honerysuckle Suprema private (P) S Ligustrum ovalifolium Hessik. Suprema private (P) S Ligustrum ovalifolium L European Hessik. Suprema private (P) S Ligustrum ovalifolium L European Hessik. Suprema private (P) H Lysimachia nummalaria L. Suprema private private (P) H Lysimachia nummalaria L. Suprema private private (P) H Lysimachia nummalaria L. Suprema private	Hydrilla	Α	Hydrilla verticillata (L.f.) Royle		Y
Yellow Iris	-			Tall impatiens	Y
Perennial peoperweed H Lepidium letifolium L. S. Agustrum volustifolium Seb. 8 Zucc. California privet (P) S. Ligustrum volustifolium Seb. 8 Zucc. California privet (P) S. Ligustrum volustifolium Seb. 8 Zucc. California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum volustifolium Hassk. Not a California privet (P) S. Ligustrum Volustifolium L. Bellis honeysuckle (misappiliod) Not Indiana privet (P) S. Ligustrum Volustifolium L. Bellis honeysuckle (misappiliod) Not Indiana privet (P) S. Ligustrum Volustifolium L. Bellis honeysuckle (misappiliod) Not Indiana privet (P) S. Ligustrum Volustifolium L. Ligustrum Volustrum Vol	• • • • • • • • • • • • • • • • • • • •				Y
Border privet (P) S Ligustrum obustefolium Sieb. & Zucc. California privet (P) S Ligustrum volusifolium Hassik. European privet (P) S Ligustrum voligrare L Japaneses homepsuckle* V Lonicera paponica Thurb. Arruur honepsuckle V Lonicera paponica Thurb. Arruur honepsuckle S Lonicera riseackii (Rupr.) Herder Morrow's honepsuckle (P) S Lonicera riseackii (Rupr.) Herder Selle honepsuckle (P) S Lonicera riseackii (Rupr.) Herder Selle honepsuckle (P) H Lysimschin ummunlaria L Selle honepsuckle (P) H Lysimschin umpunlaria L Selle honepsuckle (P) H A Mysosin societaria L Selle honepsuckle (P) H A Mysosin societaria L Selle honepsuckle (P) H A Mysosin societaria L Selle honepsuckle (P) H A Mysosin societaria (P) H A Selle honepsuckle (P) H A Mysosin societaria (P) H A M		_	•		Y
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Japanese honeysuckle' V. Lonicera japonica Thunth.		_	3		_
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Ragged robin (P) H Lychnist flos-scucil L Moneywort' (P) H H Lysimachia nummularia L. Greeping jenny Ni/ Moneywort' (P) H Lysimachia nummularia L. Greeping jenny Ni/ Garden loosestrife (P) H Lysimachia vulgaris L. Purple loosestrife A Lythrum salicaria L. European waterclover (P) A Marsilea quadrifolia L. Japanese stilt grass G Microstegium wimineum (Trin.) A. Camus Eulalia' (P) G Microstegium vimineum (Trin.) A. Camus Eulalia' (P) A Microstegium vimineum (Trin.) A. Camus Eulalia' (P) G Microstegium (Trin.) A. Camus Eulalia' (P) A Microstegium vimineum (Trin.) A. Camus Euralia vatermilioi A Myriophyllum aletarophyllum (Nol.) Verdic. Variable-leaf watermilioi A Myriophyllum pateriophyllum (Nol.) Verdic. Variable-leaf watermilioi A Myriophyllum spicatum L. Europhic water-nymph (P) A Najsurium officinale W.T. Atton Rorippa microphylla Vatercress (P) A Nasturium microphyllum (Boenn. ex. Rchb.) Rorippa microphylla Vatercress (P) A Nasturium microphyllum (Boenn. ex. Rchb.) Rorippa microphylla Vatercress (P) A Nasturium officinale W.T. Atton Rorippa nasturium-aquaticum Vallowineum (P) A Nolymphoides pelata (S.G. Gmel) Kuntze Sototh thistie (P) A Nolymphoides pelata (S.G. Gmel) Kuntze Sototh thistie (P) A Nolymphoides pelata (S.G. Gmel) Kuntze Star-of-Bethelehem (P) H Ornithogalum umbellatum L. Princest tree (P) T Paulownia tomentosa minus satus a zuc. ex saud. Empress-tree Ni/ Princest tree (P) T Paulownia tomentosa minus satus a zuc. ex saud. Empress-tree Ni/ Reed canary grass O Palaira sarudinacea L. Ornithogalum casspitosum Blume Persicaria longiseta; Oriental lady's thumb A Palaira starioties L. Canada bluegrass (P) G Poa compressa L. Brinital knotwed H Polygonum aespitosum S. Edmicus a zuc. ex saud. Empress-tree Ni/ Princest tree (P) T Paulownia to	·	_		` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	
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Purple loosestrife A Lythrum salicaria L. Water shamrock Leuropean waterclover (P) A Marsilea quadrifolia L. Japanese stilt grass G Microstegium vimmeum (Trin.) A. Camus Chinese or Japanese silvergrass N/F Griget-me-not A Myosolis scorpioides L. True forget-me-not; Water scorpion-grass N/F Griget-me-not A Myosolis scorpioides L. True forget-me-not; Water scorpion-grass N/F Griget-me-not A Myriophyllum aquaticum (Vell.) Verdc. Variable-leaf watermitloil A Myriophyllum paquaticum (Vell.) Verdc. Variable-leaf water-nymph (P) A Myriophyllum spicatum L. Eutrophic water-nymph D. Denote Vellow (P) A Myriophyllum spicatum L. Eutrophic water-nymph D. Denote Vellow (P) A Myriophyllum spicatum L. Eutrophic water-nymph D. Denote Vellow (P) A Najas minor All. Watercress (P) A Nasturtium officinale W.T. Alton Rorippa masturtium-aquaticum American water lotus (P) A Nellumbo lutea (Willd.) Pers. American water lotus (P) A Nellumbo lutea (Willd.) Pers. American water lotus (P) A Nellumbo lutea (Willd.) Pers. American water lotus (P) A Nellumbo lutea (P) H Onopordum acanthium L. Denote Vellow (P) T Pauliownia tomentosa (Thure) sebelad & Zurc. os Steud Empress-tree NV Pragmites Section (P) A Pista stratiotes L. Denote Vellow (P) A Polygonum periolistum L. Persicaria longiseta; Oriental lady's thumb Japanese knotweed (P) H Polygonum periolistum L. Persicaria longiseta; Oriental lady's thumb Nite-a-minut vine H Polygonum periolistum L. Persicaria longiseta; Oriental lady's thumb Nite-a-minut vine H Poly				Creeping jenny	_
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Eulalia" (P) G Miscanthus sinenesis Andersson Chinese or Japanese silvergrass N// Forget-me-not A Mysostis scorpioides L. True forget-me-not; Water scorpion-grass Parrotfeather (P) A Myriophyllum aguaticum (Vell.) Verdc. Variable-leaf watermilfoil A Myriophyllum spicatum L. Brittle water-nymph (P) A Najas minor All. Brittle water-nymph (P) A Nasturitum microphyllum (Boenn. ex. Richt.). Rorippa maturitum-aquaticum American water lotus (P) A Neturbo lutea (Willd.) Pers. American water lotus (P) A Neturbo lutea (Willd.) Pers. American water lotus (P) A Nymphoides peltata (S.G. Gmel.) Kuntze Sootch thistle (P) H Ompordum acanthium L. Star-of-Bathelehem (P) H Omithogalum umbellatum L. Princess tree (P) T Paulowinia tomentosia (Truns.) Siebeld & Zucc. ex Strond Reed canary grass G Phalaris arundinacea L. Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites A Pista stratiotes L. Bristled knotweed H Polygonum caespitosum Blume Apapense knotweed H Polygonum caespitosum Blume Apapense knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Alapanese knotweed H Polygonum scarbilatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine Giant knotweed (P) H Polygonum scarbilatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum scarbilatense F. Schmidt ex. Maxim. Fallopia scarbilinense Mille Prince acaitatica L. Crispy-leaved pondweed A Potamogetion crispus L. Curly pondweed or Curly-leaved pondweed Mille-arria montana (Lour.) Merr. Pucaraia londare, or Ramanas Rose Mille-arria montana (Lour.) Merr. Pucaraia londare, or Ramanas Rose Mille-arria montana (Lour.) Merr. Pucaraia londare, or Ramanas Rose Mille-arria montana (Lour.) Merr. Pucaraia londare, or Ramanas Rose Mille-arria montana (Lour.) Merr. Pucaraia londare, or Ramanas Rose Mille-arria montana (Lour.) Merr. Pucaraia londare, or Ramanas R	European waterclover (P)		·	Water shamrock	Y
Forget-me-not A Mycsofis scorploides L. True forget-me-not; Water scorpion-grass Parrotreather (P) A Myrophyllum adjusticum (Vell.) Verdic. Variable-leaf watermilloi A Myriophyllum spicatum L. Biritel water-nymph (P) A Najas minor All. Eurosian watermilloi A Myriophyllum spicatum L. Biritel water-nymph (P) A Najas minor All. Eutrophic water-nymph Oncrow yellowcress (P) A Nasturium officinale W.T. Alton Rorippa microphylla Watercress (P) A Nasturium officinale W.T. Alton Rorippa nasturium-aquaticum American water lotus (P) A Nasturium officinale W.T. Alton Rorippa nasturium-aquaticum American water lotus (P) A Nasturium officinale W.T. Alton Rorippa nasturium-aquaticum Namerican water lotus (P) A Noproficinale W.T. Alton Rorippa nasturium-aquaticum Namerican water lotus Scotch thistle (P) H Onopordum acanthium L. Scotch thistle (P) H Onopordum acanthium L. Scotch thistle (P) H Onopordum acanthium L. Princess tree (P) T Paulownia tomentosa (Thurb.) swebola & Zuoc. ex Stewl Empress-tree Nife Common reed G Phalaris arundinacea L. Camada bluegrass (P) A Pistia stratiotes L. Phragmites Water lettuce^* (P) A Pistia stratiotes L. Phragmites austrailis (Cav.) Trin. ex Steud. Phragmites Water lettuce^* (P) A Pistia stratiotes L. Phragmites austrailis (Cav.) Trin. ex Steud. Phragmites Water lettuce^* (P) A Pistia stratiotes L. Phragmites Water lettuce (P) A Polygonum cuspidatum Siebold & Zucc. Palopia japonica Persicaria longiseta; Oriental lady's thumb Dapanese knotweed H Polygonum sachalinense F. Schmidt ex. Musim. Palopia japonica White-a-minute vine Giant knotweed (P) H Polygonum sachalinense F. Schmidt ex. Musim. Palopia japonica White-a-minute vine H Ranunculus ficaria L. Curry pondweed or Curry-leaved pondweed Cispy-leaved pondweed A Potamogeton crispus L. Curry pondweed or Curry-leaved pondweed Rudzu (P) Figo butercup H Ranunculus ficaria L. L Lesser celandine Note: This plant is especially aggressive in coastal areas Wineberry S Rosa musifilora Thunb. Beach, Salt spray, Japanese, or Ramanas Rose Note: T	Japanese stilt grass				Y
Parrotfeather (P) A Myriophyllum aquaticum (Vell.) Verdc. Variable-leaf watermilloil A Myriophyllum platerophyllum Michx. Eutrophic water-nymph (P) A Najas minor All. Brittle water-nymph (P) A Najas minor All. Deriow yellowcress (P) A Nasturium microphyllum (Boenn. ex. Richb.) Rorippa microphyllum yellowcress (P) A Nasturium microphyllum (Boenn. ex. Richb.) Rorippa maturium-aquaticum Matericas (P) A Nasturium microphyllum (Boenn. ex. Richb.) Rorippa maturium-aquaticum American water lotus (P) A Nelumbo lutea (Willd.) Pers. American water lotus (P) A Nymphoides peltata (S.G. Gmel.) Kuntze Sotich thistle (P) H Omoprodum acenthium L. Star-of-Bethelehem (P) H Omithogalum umbellatum L. Star-of-Bethelehem (P) T Paulownila tomentosa (Thure) selecid a Zucc. ex Steud. Empress-tree A Red canary grass G Phafarias arundinacea L. Common reed G Phragmites australis (Cav.) Trin. ex Steud. Water lettuce* (P) A Pistia stratiotes L. Canada bluegrass (P) G Poa compressa L. Bristled knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese knotweed H Polygonum caespitosum Blume Persicaria perfoliata Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia sachalinense Mille-a-minute vine H Polygonum perfoliatum L. Persicaria perfoliata Mille-a-minute vine H Polygonum perfoliatum L. Persicaria longiseta; Oriental lady's thumb Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum perfoliatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H	Eulalia* (P)	_		Chinese or Japanese silvergrass	N/A
Variable-leaf watermilfoil A Myriophyllum heterophyllum Michx. Eurasian watermilfoil A Myriophyllum spicatum L. Brittle water-nymph (P) A Najas minor All Onerow yellowcress (P) A Nasturium microphyllum (Boenn. ex. Rchb.) Rorippa microphylla Watercress (P) A Nasturium officinale W.T. Alton Rorippa microphylla Matericas (P) A Nasturium officinale W.T. Alton Rorippa microphylla Naturium officinale W.T. Alton Rorippa microphylla Matericas (P) A Nasturium officinale W.T. Alton Rorippa microphylla Namerican water lotus (P) A Nasturium officinale W.T. Alton Rorippa maturium-aquaticum A Naturium officinale W.T. Alton Rorippa maturium-aquaticum Marerican water lotus (P) A Nymphoides pelata (S. G. Gmel.) Kuntze Scotch thistle (P) H Onopordum acanthium L. Star-of-Bethelehm (P) H Onoinogalum umbellatum L. Star-of-Bethelehm (P) H Onoinogalum umbellatum L. Star-of-Bethelehm (P) H Oninogalum umbellatum L. Princess tree (P) T Paulownia tomentosa (Thueb.) Sieleold & Zucc. ex Sieud. Empress-tree N/Common reed G Phagrinites australis (Cav.) Trin. ex Steud. Phragmites Water lettuce* (P) A Pistia stratiotes L. Canada bluegrass (P) A Pistia stratiotes L. Bristled knotweed H Polygonum caspitosum Blume Persicaria longiseta; Oriental lady's thumb Alpanese knotweed H Polygonum cuspidatum Siebold & Zucc. Fallopia japonica Mille-a-minute vine H Polygonum sachalinense F. Schmidt ex. Maxim. Fallopia sachalinense N/Cispy-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed Kudzu (P) T Populus alba L. Curly pondweed or Curly-leaved pondweed Kudzu (P) V Pueraria montana (Lour.) Merr. Pueraria lobata N/Common buckthom S Rhammus cathratica L. Black locust* T Robinia pseudo-acacia L. N/Common buckthom S Rhammus cathratica L. Black locust* T Robinia pseudo-acacia L. N/Common buckthom S Rhammus cathratica L. Sitinking Willie N/Common for (P) H Rumex acetosella L. Sitinking Willie N/Colestory H Solarum dulcamara L. Cilimbing nightshade N/Colestory N/Colestory N/Colestory N/Colestory N/Colestory N/Colestory	Forget-me-not	Α	Myosotis scorpioides L.	True forget-me-not; Water scorpion-grass	Y
Eurasian watermifloil A Myriophyllum spicatum L. Brittle water-nymph (P) A Najas minor All. Conerow yellowcress (P) A Nasturitum microphyllum (Boenn. ex. Rchb.) Rorippa microphylla Watercress (P) A Nasturitum officinale W.T. Aiton American water lotus (P) A Nelumbo lutea (Willd.) Pers. American water lotus (P) A Nelumbo lutea (Willd.) Pers. American water lotus (P) A Nymphoides petata (S.G. Gmel.) Kuntze Scotch thistle (P) H Onopordum acanthium L. Star-of-Bethelehem (P) H Omithogalum umbellatum L. Star-of-Bethelehem (P) H Omithogalum umbellatum L. Princess tree (P) Reed canary grass G Phalaris arundinacea L. Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites Water lettuce* (P) A Pistia stratiotes L. Star-of-Bethelehem (P) H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese kontweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese kontweed H Polygonum caespitosum Blume Persicaria perfoliata Mile-a-minute vine H Polygonum sachalinense F. Schmidt ex. Maxim. Fallopia sachalinense Mile-a-minute vine H Polygonum sachalinense F. Schmidt ex. Maxim. Fallopia sachalinense Mile-a-minute vine H Polygonum caespitosum L. Crispy-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed Multiflora rose S Rosa multiflora fix is sepecially aggressive in coastal areas Wille polyr Water cheventy (P) H Rumex acetosella L. Stinking Willie Giant Knorky (P) H Silphium perfoliatum L. Climbing nightshade Milester chestnut A Trapa natans L. Clifictor Clifict	Parrotfeather (P)	Α	Myriophyllum aquaticum (Vell.) Verdc.		Y
Brittle water-nymph (P) A Najas minor All. Derrow yellowcress (P) A Nasturitum dicinale W.T. Alton Rorippa microphylia Watercress (P) A Nasturitum dicinale W.T. Alton Rorippa microphylia Materican water lotus (P) A Netumbo lutea (Willd.) Pers. American water lotus Yellow floating heart^(P) A Nymphoides pellata (S.G. Gmel.) Kuntze Scotch thistle (P) H Onopordum acanthium L. Star-of-Bethelehem (P) H Omithogalum umbellatum L. Princess tree (P) T Paulowinia tomentosa (Thure). Sebada & Zucc. ex Stead. Empress-tree N/Princess tree (P) T Paulowinia tomentosa (Thure). Sebada & Zucc. ex Stead. Empress-tree A Phragmites australis (Cav.) Trin. ex Steud. Phragmites Water lettuce^(P) A Pistia stratiotes L. Canada bluegrass (P) G Poa compressa L. Bristled knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese knotweed (P) H Polygonum perfoliatum L. Crispy-leaved pondweed A Potamogeton crispus L. Crispy-leaved pondweed or Curly-leaved pondweed Mile-a-minute vine H Ranunculus ficaria L. Crispy-leaved pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed A Potamogeton crispus L. Curly pond	Variable-leaf watermilfoil	Α	Myriophyllum heterophyllum Michx.		Y
Onerow yellowcress (P) A Nasturtium microphyllum (Boenn, ex. Rchb.) Watercress (P) A Nasturtium officinale W.T. Aiton Rorippa nasturtium-aquaticum A Nelumbo luteu (Will.) Pers. A Nelumbo luteu (Will.) Pers. A Nelumbo luteu (Will.) Pers. A Nymphoides peltata (S.G. Gmel.) Kuntze Scotch thistle (P) H Onopordum acanthium L. Star-of-Bethelehem (P) H Drithogalum umbellatum L. Princess tree (P) T Paulownia tomentosa (Thumb.) Siebolid & Zucc. ex Sieuxi Empress-tree A Phalaris arundinacea L. Common reed G Phalaris arundinacea L. Camada bluegrass (P) A Pistia stratiotes II. Canada bluegrass (P) A Pistia stratiotes II. Canada bluegrass (P) A Pose compressa L. Bristled knotweed H Polygonum caspidatum Siebolid & Zucc. Eallopia japonica Mile-a-minute vine H Polygonum perfoliatum L. Crispy-leaved pondweed A Potamogeton crispus L. Wite poplar (P) T Populus aiba L. Crispy-leaved pondweed A Potamogeton crispus L. Common buckthorn S Rhamnus cathartica L. Black locust* T Robinia pseudo-acacia L. Wilderry S Rubus phoenicolasius Maxim. Sheep sorre (P) S Rosa rugosa Thunb. S Rosa multiflora Pocada L. Stinking Willie Mater chestnut A Trapa natans L. Colistoot H Tussilago farfara L.	Eurasian watermilfoil	Α	Myriophyllum spicatum L.		Y
Onerow yellowcress (P) A Nasturtium microphyllum (Boenn, ex. Rchb.) Rorippa microphylla Watercress (P) A Nasturtium officinale W.T. Aiton Rorippa nasturtium-aquaticum A Nelumbo luteu (Willd.) Pers. American water lotus (P) A Nymphoides peltata (S.G. Gmel.) Kuntze Scotch thistle (P) H Onopordum acanthium L. Star-of-Bethelehem (P) H Drithogalum umbellatum L. Princess tree (P) T Paulownia tomentosa (Thumb.) Siebold & Zucc. ex Sieud. Princess tree (P) A Pistia straticles L. Camada bluegrass (P) A Pistia straticles L. Canada bluegrass (P) A Pistia straticles L. Canada bluegrass (P) A Polygonum caspitosum Blume Japanese knotweed H Polygonum caspitosum Blume Japanese knotweed (P) H Polygonum perfoliatum L. Sight knotweed (P) H Polygonum perfoliatum L. Giant knotweed (P) H Polygonum perfoliatum L. Persicaria perfoliata Crispy-leaved pondweed A Potamogeton crispus L. Crispy-leaved pondweed A Potamogeton crispus L. Crispy-leaved pondweed A Potamogeton crispus L. Common buckthorn S Rhamnus cathartica L. Black locust* T Robinia pseudo-acacia L. Wildiflora Thunb. S Rosa rugosa Thunb. Nices This plant is especially aggressive in coastal areas Wilneberry S Rubus phoenicolasius Maxim. Sheep sorrel (P) H Rumex acetosella L. Giant squirining (P) H Silphium perfoliatum L. Stinking Willie Silphium perfoliatum L. Stinking Willie Silphium perfoliatum L. Stinking Willie Silphium perfoliatum L. Silphium perfoliatum L	Brittle water-nymph (P)	_		Eutrophic water-nymph	Y
Watercress (P) A Nasturiium officinale W.T. Aiton Rorippa nasturiium-aquaticum American water lotus (P) A Nelumbo lutea (Willd.) Pers. American water lotus	/	_	•		Y
American water lotus (P) A Nelumbo lutea (Willd.) Pers. American water lotus Yellow floating heart^ (P) A Nymphoides peltate (S.G. Gmel.) Kuntze Star-of-Bethelehem (P) H Omopordum acanthium L. Yillow Star-of-Bethelehem (P) Princess tree (P) T Paulownia tomentosa (Thunb.) Siebold & Zucc. ex Sieud Empress-tree Ni/ Reed canary grass G Phalaris arundinacea L. Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites Ni/ Canada bluegrass (P) G Poa compressa L. Polygonum caspidatum Blume Persicaria longiseta; Oriental lady's thumb Japanese knotweed H Polygonum caspidatum Siebold & Zucc. Fallopia japonica Nile-a-minute vine H Polygonum sachalinense F. Schmidt ex. Maxim. Fallopia sachalinense Ni/ Crispy-leaved pondweed A Potamogeton crispus L. Crispy-leaved pondweed A Potamogeton crispus L. Crispy-leaved pondweed Common buckthorn S Rhamnus cathartica L. Black locust* T Robinia pseudo-acacia L. Ni/ Multiflora rose S Rosa multiflora Thunb. S Rosa multiflora Thunb. Ni/ Note: This plant is especially aggressive in coastal areas Wineberry S Rubus phoenicolasius Maxim. Sleep sorrel (P) H Senecio jacobaea L. Climbing nightshade Ni/ Solant of Climbing nightshade Ni/ Solanton duclamara L. Climbing nightshade Ni/ Solatsfoot N				• • •	Y
Yellow floating heart^(P) A Nymphoides peltata (S.G. Gmel.) Kuntze Scotch thistle (P) H Onopordum acanthium L. Yelincess tree (P) H Ornithogalum umbellatum L. Princess tree (P) T Paulownia tomentosa (Thurub.) Siebold & Zucc. ex Steud. Reed canary grass G Phalaris arundinacea L. Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites Water lettuce^(P) A Pistia stratiotes L. Canada bluegrass (P) G Poa compressa L. Bristled knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese knotweed H Polygonum caespitosum Blume H Polygonum caespitosum Siebold & Zucc. Pallopia japonica Mile-a-minute vine H Polygonum perfoliatum L. Persicaria perfoliata Mile-a-minute vine H Polygonum sachalinense F. Schmidt ex. Maxim. Fallopia sachalinense White poplar (P) T Populus alba L. Cirispy-leaved pondweed A Potamogeton crispus L. Curly pondweed or Curly-leaved pondweed Kudzu (P) V Pueraria montana (Lour.) Merr. Pueraria lobata Fig buttercup H Ranunculus ficaria L. Lesser celandine Yelesser celandine Yele	` '				Y
Scotch thistle (P) H	. ,	_	,	, and read read	Y
Star-of-Bethelehem (P) H Omithogalum umbellatum L. Ni/A Princess tree (P) T Paulownia tomentosa (Thumb.) Siebold & Zucc. ex Steud. Empress-tree Ni/A Reed canary grass G Phalaris arundinacea L. Ni/A Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites Ni/A Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites Ni/A Canada bluegrass (P) A Pistia stratiotes L. Ni/A Canada bluegrass (P) G Poa compressa L. Persicaria longiseta; Oriental lady's thumb Ni Japanese knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Ni Japanese knotweed H Polygonum cuspidatum Siebold & Zucc. Pallopia japonica Ni Mile-a-minute vine H Polygonum perfoliatum L. Persicaria perfoliata Ni Giant knotweed (P) H Polygonum sachalinense F. Schmidt ex. Maxim. Fallopia sachalinense Ni Mite poplar (P) T Populus alba L. Currly pondweed or Curly-leaved pondweed Ni Mutacu (P) V Pueraria montana (Lour.) Merr. Pueraria lobata Ni Mutacu (P) V Pueraria montana (Lour.) Merr. Pueraria lobata Ni Black locust* T Robinia pseudo-acacia L. Lesser celandine Ni Muttiflora rose S Rosa mutiflora Thunb. Ni Muttiflora rose S Rosa mutiflora Thunb. Ni Muter This plant is especially aggressive in coastal areas Ni Note: This plant is especially aggressive in coastal areas Ni Note: This plant is especially aggressive in coastal areas Ni Mutacu (P) H Rumex acetosella L. Stinking Willie Ni Tansy ragwort^ (P) H Senecio jacobaea L. Stinking Willie Ni Tansy ragwort^ (P) H Senecio jacobaea L. Climbing nightshade Ni Water chestnut A Trapa natans L. Climbing nightshade Ni Water chestnut A Trapa natans L. Climbing nightshade Ni Muter chestnut A Trapa natans L. Climbing nightshade Ni Cottsfoot H Tussilago farfara L. Ni Ni/A					Y
Princess tree (P) T Paulownia tomentosa (Thurb.) Siebold & Zucc. ex Steud. Reed canary grass G Phalaris arundinacea L. Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites N// Water lettuce^ (P) A Pistia stratiotes L. Canada bluegrass (P) G Poa compressa L. Bristled knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese knotweed H Polygonum caespitosum Blume Persicaria perfoliata Yersicaria perfoliata Mile-a-minute vine H Polygonum perfoliatum L. Persicaria perfoliata Yersicaria perfoliata Yer	` ,	_	•		
Reed canary grass G Phalaris arundinacea L. Common reed G Phragmites australis (Cav.) Trin. ex Steud. Phragmites Mater lettuce^ (P) A Pistia stratiotes L. Canada bluegrass (P) G Poa compressa L. Bristled knotweed H Polygonum caespitosum Blume Persicaria longiseta; Oriental lady's thumb Japanese knotweed H Polygonum cuspidatum Slebold & Zucc. Fallopia japonica Mile-a-minute vine H Polygonum perfoliatum L. Persicaria perfoliata Persicaria perfoliata Cigart knotweed (P) H Polygonum sachalinense F. Schmidt ex. Maxim. Fallopia sachalinense Yentite poplar (P) T Populus alba L. Crispy-leaved pondweed A Potamogeton crispus L. Crispy-leaved pondweed or Curly-leaved pondweed Kudzu (P) V Pueraria montana (Lour.) Merr. Pueraria lobata Fig buttercup H Ranunculus ficaria L. Lesser celandine Common buckthorn S Rhamnus cathartica L. Black locust* T Robinia pseudo-acacia L. Black locust* T Robinia pseudo-acacia L. Multiflora rose S Rosa multiflora Thunb. Rugosa rose* (P) S Rosa rugosa Thunb.* Beach, Salt spray, Japanese, or Ramanas Rose Wineberry S Rubus phoenicolasius Maxim. S Rub	` '	_	-	Empress-tree	Y
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CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION Invasive Plant Program 2010 Year End Report

<u>DEP Non-native Invasive Plant Species Control Projects using Supplemental</u> Environmental Project Funds

Four high priority invasive plant control projects were selected for funding based on the 2008 Request for Proposals - Grants to Municipalities for Control of Invasive Plants. Work has been initiated on the two mile-a-minute projects and the Bantam Lake project. The water chestnut control project will be conducted in 2011 and 2012. Final Reports will be submitted in 2011/2012. Total funding committed - \$109,608.91

Project Summaries

- Removal of mile-a-minute vine from lands in New Milford, CT-The Town of New Milford used a combination of hand-pulling, mowing and herbicides to control mile-a-minute vine (*Persicaria perfoliata*). A state-listed sedge species of Special Concern (*Carex trichocarpa*) is found on at least one property but was not be adversely affected by the project and may even benefit from the removal of mile-a-minute vine as competition. The Town of New Milford removed mile-a-minute vine from 12 properties and other roadsides in southern New Milford. New Milford. Total Funding: \$14,735.00 Completion Date: June 30, 2011
- Mile-a-minute vine control project in Newtown, CT Volunteers led by Town of Newtown staff conducted pre-control monitoring at mile-a-minute vine (*Persicaria perfoliata*) sites in Newtown and held outreach events for mile-a-minute vine awareness and public education. The Town used a combination of hand-pulling, mowing, and herbicide applications to control mile-a-minute vine. Only trained members of town staff and trained volunteers conducted the hand-pulling of the vines to ensure that native species were not accidentally removed and that mile-a-minute seeds were not transported. Monthly monitoring by volunteers and Town staff will continued through the growing season. The project may be used as a template for other future invasive plant removal efforts in the town. Total Funding: \$10,873.91 Completion Date: June 15, 2011
- Bantam Lake/River Suction Harvesting of Cabomba, Town of Litchfield This project used diver-assisted suction harvesting to remove fanwort along the north shore of Bantam Lake and at the inlet of the lower Bantam River. Additionally, several small areas of fanwort in Bantam Lake, originally colonized by fragments exported from the river, have been expanding in size. Benthic barriers are being tested to determine the efficacy of their use in controlling fanwort growth in the lake and sections of the Bantam River, which will be vital to limiting spread within the lake and in downstream waters. The re-growth of fanwort from the cleared area will be evaluated over the next two years. A long-term management plan will be prepared as part of this grant to develop a strategy for continued fanwort removal from Bantam Lake and Little Pond based on the efficacy

of suction harvesting and benthic barrier placements conducted during this project. <u>Total</u> Funding: \$78,000 Completion Date: January 15, 2011

• Water chestnut control at Hartford Flood Control Ponds, City of Hartford & U.S. Fish and Wildlife Service (USFWS) - DEP entered into a joint funding agreement with the USFWS to cost-share herbicide treatments at the Hartford flood control Pond (north Hartford) with the goal of eradicating a dense infestation of water chestnut. Protecting the Connecticut River from this invasive plant has been a priority for DEP and USFWS and this pond outflows to the river. This population of water chestnut was first reported in October, 2005 and the first control actions were scheduled to begin at this site in June, 2007. Unfortunately, low water levels in the pond prevented treatment until after a localized rain event had exported a substantial amount out to the river. Control actions have been sporadically implemented since. Annual control actions are essential until complete eradication has been achieved. Low water levels this July and August (2010) made it impossible to conduct control work (herbicide application). The funding will be used in 2011 and 2012. Funding: \$6,000 completion Date; June 2013

Changes to Connecticut Legislation

Inland Fisheries staff worked with the State of Connecticut Judicial Branch to correct an oversight and have Connecticut General Statutes section 15-180 (requires removal of plants from boats and trailers prior to transporting the boat or boat trailer) included in the schedule of "mailin" violations/infractions. This change will simplify enforcement of the statute as court appearances will no longer be required.

Aquatic Nuisance Species (ANS) Cooperative

DEP-Inland Fisheries Division used United States Fish and Wildlife –Aquatic Nuisance Species (ANS) Task Force funds to establish a part time Aquatic Nuisance Species Coordinator. A one year Cooperative Agreement with the University of Connecticut was approved on September 17, 2010. Dr. Patricia Bresnahan worked on the 2006 CT ANS Plan Steering Committee. She will serve as the ANS Coordinator and will work closely with Nancy Murray, CT DEP Inland Fisheries Division. Key tasks to be undertaken include: establish the CT ANS Coordinating Committee; review and update ANS listing protocols, species lists and vector lists; develop protocols that will minimize industry, recreation, and research introductions; prepare a CT Rapid Response Plan, prepare an Early Detection Plan and develop a CT ANS website.

CT Invasive Plants Coordinator

DEP was able to fund and implement a one year Project Amendment to the existing Cooperative Agreement with the University of Connecticut Plant Science and Landscape Architecture Department. This amendment allowed us to extend the Invasive Plant Coordinator contract until June 30, 2011. Logan Senack, the Invasive Plant Coordinator, reports jointly to the DEP and the University of Connecticut. Currently, no funding is available to continue this program after June 30, 2011.

Accomplishments

Provided administrative support to the Invasive Plants Council-Senack provided administrative support to the Invasive Plants Council by preparing and posting meeting minutes for the year and assisting with several IPC requests for information.

Created vectors report and list of recommendations to reduce spread -Worked with Donna Ellis (UConn) and Nancy Murray (DEP) to develop a list of possible vectors of spread for invasive plants. The document also includes a list of recommendations that could be implemented to reduce the potential for invasive plants to spread.

Developed new terrestrial and aquatic invasive plant displays for public outreach_- Worked with Donna Ellis (UConn) and Nancy Murray (DEP) to develop new invasive plant displays for public outreach events. The new table-top displays cover general information about invasive plants, Connecticut's invasive plant laws, and give examples of several commonly found invasive plants. Multiple copies of the displays were created so that UConn, DEP and other outreach groups could use the displays at events statewide.

Completed research and developed recommendations for a data management system that will track locations and control efforts for early detection invasive plants_- Gathered information and offered recommendations on specific programs to use to develop an invasive plant database, and has continued to participate in conference calls on topics including mapping software, early detection of aquatic invasive plants, and other issues. Data would be used to update the Invasive Plant Atlas of New England.

Increased public awareness about mile-a-minute vine – Work continued with staff at DEP and UConn to expand a University website about mile-a-minute vine, a species considered a high priority invasive plant. Senack also continued to distribute cards, flyers and posters about mile-a-minute vine to businesses, residents, non-profit groups, state and town staff, and other organizations, asking that any suspected findings of mile-a-minute vine be reported to DEP or UConn, and continued to collect information about the distribution and spread of mile-a-minute vine in Connecticut. Reports from the public led to the discovery of mile-a-minute in two new towns in the state this year. Control actions have been conducted at these new sites and will continue in 2011.

Expanded pilot project to develop reporting protocol for invasive plants – Work continued on the reporting protocol for invasive plant species. A pilot project using reporting of mile-aminute vine was used to gauge public response in 2008-2009. The program has been expanded to accept and track reports for Giant hogweed.

Assisted planning an Invasive Plant Symposium hosted by the Connecticut Invasive Plant Working Group (CIPWG) – The Invasive Plant Coordinator assisted Donna Ellis and worked with many others in helping to plan the Fifth Biennial Invasive Plant Symposium, hosted by CIPWG at the University of Connecticut in October. More than 300 people attended a full day of workshops and presentations about invasive plants.

DEP Connecticut River water chestnut Control

DEP and US Fish & Wildlife Service (USFWS) completed their annual water chestnut survey of the Connecticut River. DEP surveys the main stem CT River and associated coves from Hartford to Essex and USFWS staff coordinate and lead water chestnut control activities from Hartford north into Massachusetts, including major infestations on the Hockanum River and several other sites in the Hartford area. Both DEP and USFWS found and removed (hand-pulling) more plants than in 2009, possibly due to better growing conditions in 2010 (lower flows, early start to the growing season and more sunny days). Low water levels prevented application of herbicides to treat a dense infestation (90% coverage) of water chestnut in a 3-4 acre flood control impoundment in north Hartford that outflows to the CT River. This treatment was to be jointly funded by DEP (through Supplemental Environmental Project accounts) and USFWS. DEP Inland Fisheries Division staff also again located and removed plants from the confluence of the Still River and Lake Lillinonah, where plants have been found and removed annually beginning in 2006 (although its abundance appears to be decreasing).

DEP Wetland Habitat Restoration and Mosquito Management (WHAMM) Program 2010 Invasive Plant Control

The DEP WHAMM Program started spraying in mid July and will continue until the first killing frost along the coast. The DEP is using two crews with our new Marsh Master II (purchased with CT Duck Stamp Funds) and an ARGO. We are using two different herbicides: glyphosate and imazapyr. The sites are the following:

NRCS Wildlife Habitat Incentive Program funded Projects for Phragmites control

Pomfret, CT Audubon – 30 acres

Verkades in Waterford – 1 acre

Assekonk Swamp WMA in North Stonington – 2 acres

Barn Island WMA in Stonington – 2 acres

John Minetto SP in Torrington – <.5 acres

White Memorial in Litchfield – 10 acres

Pandolpho site in Ashford – 3 acres

Harkness State Park -Dune Restoration – invasive knotweed control in Waterford – <.5 acres Columbia – Yellow Floating Heart - <.25 acres

DEP Landowner Incentive Program funded Projects for Phragmites control

Sharon, CT Audubon – 10 acres

Mill Meadows in Old Saybrook – 1 acres

Bermuda Road Aspetuck LT in Westport – <.5 acre

Sherwood Mill Pond in Westport – 1 acres

Flanders NCLT in Woodbury – <.5 acres

Joshua Creek LCT, Lyme – 2 acres

Seaside Ave in Guilford – 2 acres

<u>Natural Resources Conservation Service</u> Wetlands Reserve Program funded for Phragmites control

Ayers Point WMA in Old Saybrook
Ragged Rock WMA in Old Saybrook
Plum Bank WMA in Old Saybrook
Back River in Old Lyme
Upper Island in Old Lyme
Great Island in Old Lyme
Silver Sands SP in Milford
Sherwood Island SP in Westport

Department of Transportation Funded for invasive control

Groton Airport, knotweed and Phragmites 1 acre West River in West Haven, Phragmites < .5 acres Kent, Wyantenock State Forest, 2 Projects, Phragmites - 4 acres Flatbush Ave., Hartford – 5 acres

Other Phragmites control projects

Little River, New Haven, North Haven 100 acres Roy Swamp WMA in Sharon – 3 acres Davis Pond in East Lyme – 2 acres Mile Creek in Old Lyme – 5 acres

DEP Wildlife Division- State Land Habitat Management Program and Landowner Incentive Program

The Wildlife Division's Landowner Incentive Program (LIP) provides technical advice and cost assistance to private landowners for habitat management that will result in the protection, restoration, reclamation, enhancement, and maintenance of habitats that support fish, wildlife, and plant species considered at-risk. Activities include invasive plant control projects. This program has been made possible through grants from the U.S. Fish and Wildlife Service, which recognized the need to help states with the stewardship of their at-risk species.

Program 2010 Invasive Plant Control

Stonington, Barn Island: black swallow-wort, autumn olive, glossy buckthorn. Spray old fields & grasslands

Burn, Robbins Swamp Rt 7: Control autumn olive & multiflora rose.

North Haven, Quinnipiac River SP: Plant natives where invasives are being controlled. tree & shrub planting; restoration

North Haven, Quinnipiac River SP: Control mile-a-minute, autumn olive, multiflora rose & bittersweet. Spray

Hamden, West Rock SP: Control autumn olive & multiflora rose. Mow fields Hamden, West Rock SP: Control autumn olive & multiflora rose. spray & manual Burlington, Sessions Woods WMA: Control black locust. spray

Hartland, Tunxis SF: Control barberry, autumn olive & barberry in WSG field. Mow and manage white ash to improve grassland bird habitat

Hartland, Tunxis SF: Control barberry, autumn olive & barberry in WSG field. Spray and manage white ash to improve grassland bird habitat

Hartland, Tunxis SF: Plant natives where invasives are being controlled (restoration)

Sterling, Pachaug Complex: Control autumn olive & multiflora rose. Brush hog

Kent, Housatonic River WMA: Control autumn olive & multiflora rose. Brush hog

Bozrah, Bear Hill WMA: Control autumn olive & multiflora rose. Mow

Bozrah, Bear Hill WMA: Control barberry & multiflora rose. Manual

Bozrah, Bear Hill WMA: Control barberry & multiflora rose. Spray herbicide

Vernon, Belding WMA: Control barberry & multiflora rose. Brush hog

Vernon, Belding WMA: Control barberry & multiflora rose. Manual & spray herbicide

Eastford, Griggs Pond: First step in the control of autumn olive (will spray next yr).

Plainfield, Quinebaug WMA: Control barberry & multiflora rose.

Andover, Bishop Swamp: Control barberry & multiflora rose. Spray herbicide

Middlefield, Aircraft Rd: Control barberry & multiflora rose. Manual & spray

Scotland, Talbot WMA: Control barberry & multiflora rose. Mow

Scotland, Talbot WMA: Control barberry

Lebanon, Pease Brook WMA: Control barberry & multiflora rose. Spray

Lebanon, Pease Brook WMA: Control barberry & multiflora rose. Brush hog

Lebanon, Pease Brook WMA: Plant natives where invasives are being controlled. Seed

Colchester, Babcock Pond WMA: Control autumn olive & multiflora rose. Mow of

Moodus, Machimoodus SP: Control autumn olive & multiflora rose. Spray

East Windsor, FFTA: Control autumn olive & multiflora rose. Mow fields

Torrington, John Minetto SP: Phragmites. Spray and mow phragmites

Haddam, Clarkhurst WMA: Control autumn olive & multiflora rose. mow

Goshen, Goshen WMA: Barberry, multiflora rose and willow. grassland mowing

Simsbury, Simsbury WMA: Control barberry & multiflora rose. Spray

Ridgefield, Bennett's Pond: Control autumn olive & multiflora rose. Mow

Ledyard, Rose Hill WMA: Control autumn olive & multiflora rose. Mow

Kent, Housatonic River WMA: Control autumn olive & multiflora rose. Mow honeysuckle

Scotland, Spignesi WMA: Barberry & autumn olive. Spraying-field & forest regeneration

Naugatuck, Naugatuck SF: Barberry & autumn olive. Spray fields