

INVASIVE PLANTS COUNCIL
SEVENTH Annual Report
December 8, 2009

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 seventh annual report on activities conducted during 2009. 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 sixth annual report dated December 9, 2008. See attachment #2 for the approved minutes for 8 meetings, including those for the December 9, 2008 meeting. The minutes for the December 8, 2009 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) serves as Vice Chairman. No changes in membership have occurred since our last annual report. At its November 12, 2009 meeting, the Council voted to retain the current Chairman and Vice Chairman for an additional one-year term.

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. Mr. Logan Senack, the state's first Invasive Plant Coordinator, is thanked for taking minutes for the Council (among all the many things he does to help our agencies and many volunteers control invasive plants). 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

The operation of the Council changed dramatically this year. Through the \$500K/year funding provided by the General Assembly, DEP was able to initiate a desperately needed comprehensive program regarding invasive plants. We are very pleased that Connecticut's first Invasive Plant Coordinator, Logan Senack, was hired in December 2008 through a DEP contract with the University of Connecticut. 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.

Late in 2008, the DEP announced a program to provide grants to municipalities so that invasive problems on public use areas could begin to be addressed in our state. Especially considering that the grants required a match from municipalities, the response to this request for proposals was phenomenal (see attachment 3). The Council reviewed the recommendations by DEP and unanimously approved their proposal to award 10 contracts to 10 of the 37 municipalities that requested awards. By February, 2009, the contracts had been prepared and were awaiting final signature, when state fiscal difficulties forced rescission of the funds that would have supported these and other efforts.

Funding through the DEP to the CAES supported training sessions for DOA staff to identify invasive aquatic plants that they might find for sale in the state's pet shops. In addition, DEP had contracted with University of Connecticut for a clean-up demonstration project to remediate Hydrilla in the Silvermine River Watershed in Norwalk, CT, prior to the budget rescission, so this project continued throughout the year with good results.

In addition to its advisory work early in the year on the Grants to Municipalities Program, the Council responded to many legislative initiatives this year:

Governor's Bill 6375 to eliminate the CT Invasive Plants Council effective Oct. 1, 2009. The impact of this Bill was discussed at two of the Council meetings (see minutes for Feb. 10, 2009 and March 10, 2009 meetings). The Council has a legislatively-mandated role to play with regard to maintenance of the invasive plant lists for Connecticut. Subsequently the Invasive Plant Council was removed from the sunset list in Governor's Bill 6375.

Raised Bill 790, An Act Implementing the Recommendations of the Invasive Plant Council. See attachment 4 for the Council's testimony for Feb. 18, 2009 hearing with the Environment Committee.

Appropriations committee See attachment #5 for the Council's Feb. 19, 2009 testimony. This testimony was made to urge mitigation of the Governor's proposal to cut funding for the program from \$500K to 0. The Council urged retention of a "keep-alive" budget of about \$100K per year that would fund the Invasive Plant Coordinator position, thus allowing educational efforts to continue.

The Council heard two presentations about the DEP-commissioned Hydrilla control project in the Silvermine watershed from Dr. John Volin, Dr. Jason Vokoun, and Mr. Nicholas Reif from the Department of Natural Resources and the Environment at UConn. They also heard a presentation from Dr. Mark Brand, a professor in the Department of Plant Science and Landscape Architecture at UConn, regarding progress in the development of sterile cultivars of barberry and euonymus. A recurring issue through the year was how enforcement of the invasive plant regulations can be carried out in the state. The Council also reviewed the lists of invasive and potentially invasive plants in Connecticut.

Suggested Plant Regulation Changes

The Council has considered changes proposed to the list of invasive and potentially invasive plants in Connecticut and has identified several plants that may be deserving of a change in classification. During its November meeting, the Council voted to change the status of four plants currently listed as 'potentially invasive' to 'invasive,' based on recent analysis of their distribution and spread. These changes, along with a slight modification to the status of the rugose rose, are documented in Attachment #6. Another issue remaining to be decided by the Council is settling on a standard authority for nomenclature.

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 developed by DEP. A violation of Sect. 22a-381d is listed with a \$50 fine in the schedule of infractions. The situation governing inspections for aquatic plants being carried by boats and boat trailers is less clear. Sect. 15-180 of the CT General Statutes (transport of vegetation on boats and boat trailers) is enforceable by DEP but is listed as a misdemeanor, not an infraction, requiring both the offender and the officer to appear in court. Lake Authority personnel, under the authority of resident state troopers, might be a way to additionally enforce the law. An enforceable invasive plant boating law is key to preventing spread of aquatic invasives in lakes and other waterways. The Council recommends that Sect. 15-180 be amended to change the misdemeanor to an infraction, in order to make enforcement easier and more effective.

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 2009 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.

Council members are grateful that the technical changes recommended in prior years were at last passed by the General Assembly 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.

As Chairman, I offer a response to the question weighing on the minds of our Council members: in view of the loss of funding for the program, what have we accomplished? Are we back to square one? I would argue that our efforts have not been in vain. We have established a working list of invasive plants for the State, and the legislature has banned many of them. We have worked to refine the legislation so that mechanisms for inspection and enforcement are now in place. 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). Strong response to DEP's Grants to Municipalities Program validates the concept of that program and shows promise for future efforts. Moreover, 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 E. Musgrave
Chairman

Attachment 1. Council members

Attachment 2. Minutes of meetings

Attachment 3. Grants to municipalities

Attachment 4. Environment committee testimony

Attachment 5. Appropriations committee testimony

Attachment 6. Changes to the invasive plant list.

Attachment 7. DEP invasive plant program 2009 accomplishments

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SEPTEMBER 2009

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CT Invasive Plants Council
Tuesday, December 9, 2008
2 pm, Valley Laboratory
Windsor, CT

Council members present:

Lou Magnarelli, Mary Musgrave, Philip Prelli, Les Mehrhoff, Bill Hyatt, David Sutherland, Paul Larson

Others present:

Donna Ellis, Nancy Murray, Logan Senack, Mark Brand, Rose Hiskes, Dick Shaffer, Bob Heffernan

1. Musgrave called the meeting to order at 2:07 pm, and welcomed the new Invasive Plant Coordinator (Logan Senack).

2. The minutes for the 11/06/08 meeting were reviewed. Magnarelli requested to amend the minutes to spell out the initial use of the abbreviation “RFP” (Request for Proposals). A motion was made (Prelli) and seconded (Larson) to approve the minutes with the change. **The 11/06/08 minutes were approved with the change.**

3. Approval of Annual Report: Musgrave explained the format and composition of the Sixth Annual Report of the Council, and the group discussed changes to the draft.

-Sutherland suggested changing the wording of a sentence on page two of the cover letter, and after discussion, the group decided to remove the sentence in its entirety.

-In the section titled “Overview of Current Activities”, it was decided that the wording would be modified to identify the Coordinator by name and to reflect the fact that he has now been hired.

-Hyatt suggested changing the sentence ending with “DEP” (page 3, paragraph 3 of the cover letter) to reflect the fact that the status of enforcement ability by DEP officers for banned plants is still unclear. After discussion, Musgrave suggested adding “At this time, DEP’s enforcement authority is unclear, and the Council is looking at suggestions for legislation that would clarify the enforcement function”.

Sutherland moved to approve the report. Hyatt seconded the motion and **the group approved the annual report with the changes.**

Mehrhoff suggested adding a discussion of the lack of definite enforcement authority at a future meeting of the IPC. Prelli suggested that Hyatt could look into ways to implement the enforcement function through DEP, and report the results at the next meeting of the IPC.

4. Updates on Program Funding, Invasive Plant Coordinator and Grants to Municipalities Request for Proposals:

a. The status of the Invasive Plant Coordinator position was discussed at this meeting—the position has been filled.

b. Hyatt reviewed the status of the Grants to Municipalities RFP and noted that 41 applications had been received from a total of 37 municipalities. When totaled, the funding requests exceeded \$950,000 and municipalities were offering over \$630,000 in matching funds. The amount of available grant funds (\$175,000) will only be able to partially address these needs. The grants committee plans to recommend specific proposals by the January Invasive Plant Council meeting, and, due to the high demand for funds, provide rationale and reasoning for the prioritization and selection of some projects over others. Hyatt also reported that the applications for funding appear to be relatively evenly split between aquatic and terrestrial projects.

c. Mehrhoff expressed concern that some criteria, especially with regard to the control of early detection species, may be unreasonably weighted to show preference for newly discovered invasions. Hyatt explained that the ranking criteria allot only 5 points of the total 76 for this category. Musgrave asked to defer further discussion of this matter until the next meeting, due to time constraints on today's agenda.

d. Magnarelli had asked that the issue of future program funding be raised with the group. Discussion followed regarding the possibility that the Invasive Plant Program had already been listed by DEP as an area for potential cost savings.

e. Sutherland suggested discussing, at the next meeting, a strategy for dealing with the possibility that the program will be cut or reduced. Hyatt added that the issue of the current \$140,000 unspent funds should also be discussed. Sutherland and Magnarelli agreed, and Magnarelli acknowledged the challenges posed by the current budget situation.

f. Sutherland suggested creating a core budget representing the minimum funding level required to keep the program, so that it can be taken to the Appropriations Committee. Hyatt suggested setting the minimum at a level to continue the Invasive Plant Coordinator and ANS positions, in addition to adding to the Grants for Municipalities funding to better meet the needs of all applicants for the grants.

g. Mehrhoff asked if the number and distribution of people, municipalities and regions standing to benefit from the projects can or should be taken into account when disbursing grants. This was not part of the scoring rubric developed by DEP.

h. Musgrave and Sutherland suggested adding a “funds available” line to the Grants for Municipalities Worksheet created by Murray, and Magnarelli advised a title change for the document.

i. Sutherland moved (Magnarelli seconded) to add the grants worksheet, after edits, to the Annual Report. **The motion passed. The document will be returned and added to the**

annual report after editing and additions. Commissioner Prelli stated that he **opposed** the previous motion and expressed concerns over the addition of the grants document to the report. He felt that the annual report should focus on the prior significant accomplishments of the past year's programs and not on any proposed future programs since the grants have not yet been dispersed and the results of the projects are not known.

5. Update of research project at UConn- Dr. Mark Brand: Musgrave welcomed and introduced Dr. Mark Brand, Professor of Horticulture at the University of Connecticut, for a special presentation. The group was invited to ask questions during the presentation, which focused on progress toward developing sterile cultivars of *Berberis* species and *Euonymus* species. Twelve cultivars of *Berberis* produced fewer than 400 fruits/year for the past three years in Dr. Brand's experimental plots, and he reported that his estimated timeline for developing and evaluating sterile barberry plants is 5-11 years.

Dr. Brand discussed the ability of seedlings from purple cultivars of *Berberis thunbergii* to revert to green foliage, given the proper (low-light) conditions, and presented a possible "invasiveness index", a measure which would take into account several factors including seed production, germination, establishment, and vigor to better quantify a plant's invasiveness. Dr. Brand also explained recent work using Amplified Fragment Length Polymorphisms to determine the genetics and parentage of wild or non-cultivated *Berberis* plants.

If possible, the presentation materials will be made available for members of the Council who were absent.

The Council thanked Dr. Brand for his presentation and noted with appreciation that he has so far appeared three times to provide information at Council meetings.

6. Other old or new business: Hyatt advised posting and displaying the minutes (and agendas) for the Invasive Plant Council on the website of the Connecticut Invasive Plant Working Group (CIPWG) and providing a link from the DEP website and/or other locations, to satisfy the legal requirement for reporting of the activities of the Council. He suggests this method since it would increase efficiency and decrease the time needed to make the minutes publicly available.

Prelli moved to post the minutes in this manner, Magnarelli seconded, and **the motion was passed.** The minutes will be posted on the CIPWG website, and a DEP website will link to it. This will satisfy requirements to make the minutes publicly accessible by the DEP.

7. Adjournment: Magnarelli moved to adjourn the meeting, Mehrhoff seconded, **and the Council decided to adjourn at 4:08 pm.**

The next meeting is scheduled for (Tuesday) Jan 13, 2009, 2 pm at the Valley Lab in Windsor, CT.

CT Invasive Plants Council
Tuesday, January 13, 2009
2 pm, Valley Laboratory
Windsor, CT

Council members present:

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

Others present:

Donna Ellis, Nancy Murray, Logan Senack, Bill Foreman, Dick Schaffer

1. Musgrave called the meeting to order at 2:05 pm.

2. The minutes for the 12/09/08 meeting were reviewed. Prelli moved (Larson seconded) to approve the minutes. **The 12/09/08 minutes were approved** with no changes.

3. Discussion of the posting of minutes and required procedures: The group reviewed and discussed strategies to meet the requirements for properly posting minutes by the designated seven-day deadline, since “approved” minutes will not be available until the next month’s meeting. The council decided that draft minutes should still be posted in order to satisfy the posting deadline, but that a large “DRAFT” watermark across the document will show that the minutes have not yet been reviewed by the Council. Further, it was decided that the Invasive Plant Coordinator will distribute the minutes to the Council members prior to distributing them to the public via the website, so that any *major* inaccuracies can be resolved prior to public distribution. Changes, including grammar, spelling, etc., will still be discussed by the Council at the following meeting unless it is felt they radically affect the meaning of the minutes.

4. Annual Report report: Musgrave explained the massive effort required for the distribution of the Invasive Plants Council’s Sixth Annual Report. About eighty copies were distributed to the appropriate offices and individuals after the report was completed. The remaining copies will be held at the CT Department of Environmental Protection (DEP).

Ellis and Senack requested an electronic copy of the report so that it can be posted to the CIPWG website with previous annual reports and meeting minutes.

5. Grants to Municipalities status report: Hyatt provided a recap and update on the Grants to Municipalities Requests for Proposals, and provided DEP’s recommendations on project funding to the group. A total of 41 applications from 37 municipalities were received, and a total of \$936,403.83 was requested in funding.

The DEP Invasive Plant Working Group, composed of nine DEP staff members from various Bureaus and Divisions within DEP, examined the proposals in a careful review process and met to discuss the proposals. The recommendation process was difficult due to of the high number of applications, large quantity of well-planned applications, and the limited funds available for projects.

Three members of the DEP Invasive Plant Working Group (Foreman, Murray, Senack) were present to answer questions from the Council about the review process and the recommended proposals.

Sutherland expressed thanks to the nursery industry for making the funding for the Grants project possible, and Hyatt also thanked the Council for its support. Hyatt recommended nine proposals (a total of \$175,000) for funding:

<u>Municipality</u>	<u>Project Title</u>
TOWN OF PLAINFIELD	REMOVAL OF VARIABLE LEAF MILFOIL (MYRIOPHYLLUM HETEROPHYLLUM) FROM MOOSUP POND, PLAINFIELD
TOWN OF SPRAGUE	REMOVAL OF PHRAGMITES AND MULTI-FLORA ROSE FROM THE BALTIC RESERVOIR AND PARK
TOWN OF NEWTOWN	"MILE-A-MINUTE VINE CONTROL IN NEWTOWN OPEN SPACE AREAS ADJACENT HUNTINGTOWN ROAD
TOWN OF REDDING	JAPANESE BARBERRY ERADICATION FROM TOWN OF REDDING CONSERVATION LANDS
CITY OF NEW HAVEN	CONTROL OF THE MOST EGREGIOUS INVASIVE PLANTS AT BEAVER PONDS PARK, NEW HAVEN, CT.
TOWN OF LITCHFIELD	PERMANENT REMOVAL OF FANWORT (CABOMBA CAROLINIANA) FROM BOATING LANES IN THE LOWER BANTAM RIVER USING SUCTION HARVESTING, AND PREPARATION OF A LONGTERM FANWORT CONTROL PLAN.
TOWN OF NEW MILFORD	MILE-A-MINUTE (MAM) INVASIVE SPECIES CONTROL PROJECT
CITY OF BRIDGEPORT	VETERANS MEMORIAL PARK INVASIVE SPECIES CONTROL PROJECT
TOWN OF HAMPTON	REMOVAL OF INVASIVE PLANT SPECIES FROM SCHOOL ENVIRONMENTAL STUDY AREA

Prelli moved (Goodwin seconded) to accept the recommendations from DEP to fund the nine proposals.

Hyatt proposed adding project ten (below) to the list of proposals if funding for the project becomes available. There were no objections, and **the motion was amended.**

TOWN OF WINCHESTER	GRANTS TO MUNICIPALITIES FOR THE CONTROL OF INVASIVE PLANTS AND ERADICATION OF INVASIVE AQUATIC PLANTS AT HIGHLAND LAKE, WINSTED, CONNECTICUT.
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The Council approved funding for the 9 (10 if possible) proposals with no objections. Review and approval by the DEP Commissioner is the final step in the process. A press release will be disseminated when these grants are announced.

6. Core budget needs and strategy, invasive plant program (Hyatt)

Hyatt reported to the group regarding core budget needs. DEP would like to maintain the University of Connecticut Cooperative Agreements for the Hydrilla Control Program through 2010 and the Invasive Plant Coordinator through the next fiscal year. Funding possibilities for the Aquatic Nuisance Species position were also discussed.

After some discussion, it was decided that a minimum funding request would be sent to the Appropriations Committee. Sutherland and DEP will work together to write a brief document for the request.

Prelli asked the Chairman to express to DEP the concern of the Invasive Plant Council that Council members want the coordinator position to remain funded.

7. Legislative strategy: The Council discussed legislative issues for the upcoming year.

- Since enforcement authority of the Banned Plants List is still unclear, Hyatt agreed to look at the language for the enforcement of the Banned Plants List, discuss the issue with staff within DEP, and report back to the Council.

- The group decided to move forward with the bill that had been submitted last year, especially since the updating of the technical changes in the law would be at no cost to CT.

8. Goals for the year:

- The Council should evaluate the existing Invasive Plant List and determine if any changes should be recommended.

- Mehrhoff suggested taking a potential Council field trip to one or some of the Grants to Municipalities Control sites to observe their progress.

- McGowan suggested having individuals on the Council or various groups serve as active monitors of the control projects.

- The group discussed a possible collaborative effort with Ned Hurle at CT DOT for a future invasive/highway project.

9. Other old or new business

- Magnarelli informed the group that CAES will host a training session for terrestrial and aquatic plant identification. The session will be held on March 5, 2009 at the New Haven facilities of the CT Agricultural Experiment Station.

- Hyatt distributed the project work plan for the Hydrilla project for people to read for their own information.

10. The next meeting is scheduled for (Tuesday) February 10, 2009, 2pm Valley Lab, Windsor, CT

11. Prelli moved (McGowan/Mehrhoff seconded) to adjourn the meeting at 3:40. The council decided to adjourn.

CT Invasive Plants Council
Tuesday, March 10, 2009
2 pm, Valley Laboratory
Windsor, CT

Council members present: Mary Musgrave, Bill Hyatt, David Sutherland, Paul Larson, Lou Magnarelli, Tom McGowan (*arrived at 2:16*)

Others present: Donna Ellis, Logan Senack, Nancy Murray

1. Musgrave called the meeting to order at 2:08 pm.

2. The minutes for the 2/10/09 meeting were reviewed: Larson moved (Hyatt seconded) to approve the minutes. **The 2/10/09 minutes were approved** with no changes.

3. Grants to Municipalities status: Hyatt informed the group that the DEP funding for the Grants to Municipalities for the Control of Invasive Species Program was no longer available, due to the state of the CT and DEP budgets. Emails have already been sent to the applicants in the towns that submitted proposals, informing them that no funds will be awarded for this program. A formal letter will be mailed to the applicants sometime during the week of March 9-13. All funds for the program are going to revert back into the CT General Fund.

(Tom McGowan arrived at 2:16)

4. Budget plans for the remainder of the year:

- The Memorandum of Understanding (MOU) for the *Hydrilla* control project has been signed and approved through 2011 by DEP. This project was approved because the original contract committed the agency to the project through 2011.

- The MOU for the Invasive Plant Coordinator position will not be extended by DEP. The contract with UConn for the position will terminate on June 30, 2009, when the current fiscal year ends. Hyatt attempted to retain funds for the following year but was unable to protect even a portion of the funds from the current sweeps into the General Fund. No funding is available to continue the position in the next budget year. Support for the Invasive Plant Program and the Invasive Plant Coordinator must come from outside DEP or the position will not exist in the next budget cycle.

- DEP was able to transfer \$15,000 to the CT Agricultural Experiment Station for inspections of nurseries and garden centers for the upcoming year. Funding was not transferred to the Dept. of Agriculture for inspections of pet shops.

- DEP is still pursuing the possibility of civil enforcement of the invasive plant ban. No formal training or certification would be needed for DEP staff to enforce the ban, though the regulatory aspects of enforcement are extremely complex.

5. Legislative updates and strategies: Sutherland reported that Governor's Bill 6375 is still in the Government Administration and Elections committee. This bill would terminate the CT Invasive Plants Council, effective October 1, 2009 (along with about 90 other Councils and Commissions). At present it is unknown whether the bill will be brought up for a public hearing before the estimated deadline of March 30, 2009. If the bill does not come up for public hearing, it will be an indication that the GAE Committee will not be passing it out of committee.

Post-meeting update: It has since been announced that the bill is on the March 16 public hearing agenda. The hearing will be held in room 2B of the Legislative Office Building at 9:30AM. People wishing to speak need to sign up prior to 8:45 AM in room 2200. Thirty-five copies of written testimony need to be submitted in room 2200 one hour prior to the start of the hearing.

- Committee Bill 5277 (formerly Raised Senate Bill 790), 'An Act Implementing the Recommendations of the Invasive Plant Council', has passed out of the Environment Committee and has been sent to the floor. Sutherland encouraged everyone to write their representatives in support of the bill, since it contains the legislative language changes that the Council has been recommending for many years. At a public hearing with the Environment Committee on February 18, 2009, Prelli submitted the testimony prepared by Musgrave on behalf of the Council, asking the members of the Environment Committee to support the bill.

- The Council discussed the Governor's budget proposal to cut the funding for the Invasive Plant Program from \$500,000 per year to \$0.00 per year in the upcoming budget cycle. Musgrave submitted testimony to the Appropriations Committee on behalf of the Council on Feb. 17, 2009, urging the Committee to retain a minimal level of funding for the Invasive Plant Program at DEP. The proposed \$100,000 core or "keep-alive" budget would represent an 80% cut in funding for the program. While this is a severe cut, it would allow a few critical functions of the program to remain funded, including the position of the Invasive Plant Coordinator, inspections at nurseries (by CT Agricultural Experiment Station) and pet shops (Department of Agriculture).

- Sutherland noted that it would be extremely important for the proposed \$100,000 to make it into the Appropriations Committee budget before it was finalized, probably in the next two weeks, and encouraged all constituent groups that can to send the "keep alive budget" recommendation to members of the Appropriations Committee ASAP.

The Council decided to attach the testimony of Musgrave and Prelli from the previous month to these minutes; as in previous years, testimony will later be included in the Annual Report.

6. Recent and upcoming invasive plant events:

- Donna Ellis presented a summary of her attendance at "Science Innovations for a Better Life: Celebrating the new National Institute of Food and Agriculture," an exhibition and reception on Capitol Hill on March 4, 2009. She and Dr. Yi Li (UConn, Plant Science) were selected to present an exhibit showcasing the work of the New England Invasive Plant Center, a multi-state project focused on controlling the spread of terrestrial invasive plants.

- Ellis also informed the group that a meeting of the Connecticut Invasive Plant Working Group would be held in the morning on March 24 at the Valley Laboratory of the CT Agricultural Experiment Station in Windsor, CT.

- Magnarelli summarized the recent training session held at the New Haven facilities of the Agricultural Experiment Station. 58 people overall (12 from the Department of Agriculture) attended the informational invasive plant ID workshop. The attendees came from towns across the state.

- Logan Senack reported to the Council on the status of a conference he is holding on March 24. The conference will bring together Town and State of Connecticut staff from multiple government agencies, representatives from all three of Connecticut's border states, the Invasive Plant Atlas of New England, a representative from a national wildlife refuge, and volunteer and citizen's groups to discuss the problems posed by *Persicaria perfoliata* (Mile-a-minute Vine) in Connecticut, discuss effective control measures, and organize solutions to stop its spread across the landscape.

- Senack also reported that regional "Mile-a-minute Awareness Workshops" are being planned for the public in areas across CT for April and early May, when the species will start to emerge from the soil and become recognizable. More details will be provided later as dates for the workshops are set.

- August 10-12, 2009: an international symposium, "Invasive Plants of the Northeast of Asia and America: Trading Problems, Trading Solutions," will be sponsored by the New England Invasive Plant Center, at the UConn campus in Storrs. Attendees from Japan, China, Korea, and the eastern part of Russia will be in attendance. Participants will have the week to consider joint project opportunities, as the two areas have similar ecosystems and plants from one can become problematic invasive species in the other. The week will begin with an open symposium at the University—registration details will be available at the next meeting.

7. Other Old or New Business, future agenda items:

- The Council will discuss its annual review of the CT Invasive Plants list at the next meeting on April 14, 2009.

- The Council will not visit any of the sites for the Grants to Municipalities projects in the fall to observe the progress of the projects, as funding for the program has been cancelled.

- If Bill 6375 passes and includes the Council, the termination date for the Council will be October 1, 2009.

8. Next meeting scheduled for (Tuesday) April 14, at 2pm in the Valley Laboratory in Windsor, CT.

9. Sutherland moved to adjourn the meeting (Hyatt seconded). The Council decided to adjourn the meeting at 3:42 pm.

CT Invasive Plants Council
Tuesday April 14, 2009
2 pm, Valley Laboratory
Windsor, CT

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

Others present: Donna Ellis, Logan Senack, Nancy Murray

1. Musgrave called the meeting to order at 2:10 pm.

2. The minutes for the 3/10/09 meeting were reviewed. Sutherland moved (Hyatt seconded) to approve the minutes as submitted. **The Council decided to approve the 3/10/09 minutes as submitted.**

3. DEP updates (Hyatt):

Hyatt, Murray, and Senack delivered an update on the progress Senack has made on the on the deliverables he was assigned as the Invasive Plant Coordinator. Senack distributed several handouts and summarized his recent activities:

a. Assignments of Plants to Management Classes*

Senack has worked with staff at DEP and UConn to break down the list of CT Invasive plants into defined categories for management. The five categories are based on the categories used in Connecticut's Aquatic Nuisance Species (ANS) Management Plan and have been adapted to apply to both terrestrial and aquatic invasive species. The document prioritizes all the species on the CT Invasive Species list, and also includes *Glossostigma cleistanthus* (Mud Mat), an aquatic invasive that was included in the previous ANS document from 2006.

b. CT Early Detection Observation Form and Protocol*

Senack also distributed a paper version of the new CT Early Detection Observation Form, currently online at www.hort.uconn.edu/mam. The form is to be used to inform the Coordinator of new populations of invasive plants in CT, especially species that are previously undocumented or have limited distributions in Connecticut. Currently, Senack is working on a pilot project for Mile-a-minute Vine reporting using the form, to gauge the level of public response and time needed to input, track and monitor the reports before other species are added. Mile-a-minute Vine is a highly invasive annual weed that has been designated as Senack's priority species by CT DEP.

c. Posters, flyers* and postcards

Senack has also developed Mile-a-minute vine posters, flyers and postcards to increase public awareness of Mile-a-minute Vine and to encourage the public to look for, identify, and report the species to the Invasive Plant Coordinator. The materials give brief introductory information on the species and have several photos regarding appropriate identification. The

published materials (posters, flyers, postcards, as well as press releases through various groups) direct anyone who observes the vine to note its location and report it to UConn or the Invasive Plant Coordinator by contacting Donna Ellis by phone or by using the website previously mentioned. In addition to being printed, the documents will also be made available on the Connecticut Invasive Plant Working Group (CIPWG) website.

4. Legislative updates and strategy (Sutherland, all)

Sutherland reported that H.B. 5277, “An Act Implementing the Recommendations of the Invasive Plant Council”, has passed out of the required committees. The bill does not need to go to any other committees within the legislature, which means it is ready to go to the House floor. Sutherland also reported that in the new budget released by the Appropriations Committee, \$25,000 has been allocated for the Invasive Plants Council in each of the next two budget years.

This amount falls well below the minimum \$100,000 “core” or “keep-alive” budget supported by the Council and is only a fraction of the \$500,000 allocated to DEP’s Invasive Plants Program in the previous two years. Sutherland reported that it may be very difficult to get this amount increased, but that it may potentially be less difficult than getting funding if no funding at all had been allocated.

Hyatt reported that the \$25,000 allocated would likely be used by DEP to fund inspections by Connecticut Agricultural Experiment Station (CAES) and Department of Agriculture, and a sufficient increase above \$30,000 could be used for program coordination.

5. Invasives list review (Mehrhoff)

Mehrhoff distributed a document regarding his comments on CT’s lists of Invasive and Potentially Invasive Plants*. Mehrhoff noted that other organizations, including the Connecticut Invasive Plant Working Group (CIPWG), have recently produced Potential or Watch Lists for CT invasive plants, but that these are independent of the list he has provided to the Council.

Mehrhoff briefly discussed each of the species on the list and explained the reasoning for his suggestions. A summary of the report follows:

-Mehrhoff suggested changing five species from Potentially Invasive to Invasive due to increased evidence of spread and ability to persist in Connecticut.

-Mehrhoff also suggested that the Council discuss and consider dropping three species from the list for the following reasons:

Elaeagnus angustifolia (Russian Olive): Although the species is highly invasive in the midwest, it does not seem to escape cultivation in CT very often. The species may be susceptible to ice damage, or CT soils may be somewhat different from soils in other areas with similar climates.

Glyceria maxima (Reed manna grass): Although the species is invasive in Massachusetts, Mehrhoff discussed a missing voucher specimen documenting the species' occurrence in CT.

Rosa rugosa (Rugosa rose): Mehrhoff reported that although this plant is clearly invasive in areas along the CT coast, inland it does not seem to escape cultivation, even along highway areas where it has been extensively planted. Mehrhoff reported that IPANE volunteers have so far been unable to find seedlings, adding to the confusion about this species.

-Mehrhoff advised keeping *Tussilago farfara* (Coltsfoot) on the state list. A number of rare species, especially in calcareous seeps in northwest CT, could be impacted or outcompeted by *T. farfara*.

-Mehrhoff suggested that 4 species may warrant further discussion and research as potentially invasive plants, including:

Phellodendron amurense (Amur cork tree): The species is bird-dispersed and has been reported in MA, RI and is known to be spreading in parts of CT.

Pyrus calleryana (Callery/Bradford pear): bird dispersed, frequently planted species because it is a perfect landscaping tree. It is beginning to escape cultivation as it grows in areas around DC, Maryland, and other mid-Atlantic states.

-Mehrhoff submitted a list of 6 species for which he would like more information, especially regarding status and distribution in CT.

Additionally, Mehrhoff suggested creating a more defined nomenclature policy to be used by the Council: The scientific names for several species, including Mile-a-minute Vine, have changed or been reclassified in the past few years. The group discussed how best to deal with the issue of changing botanical names. Murray reported that DEP's Endangered, Threatened and Special Concern species Latin names are designated by their official USDA taxonomy with few exceptions, but USDA is often not up to date (as in the case of Mile-a-minute Vine).

Ellis commented that an update of the CT Invasive Plant list would be very helpful, as she (and other educators who use the list extensively in teaching and outreach) would prefer to have the most up-to-date list available. The current list has not been updated in the past five years.

6. New problem grass in MD: Wavyleaf basket grass, *Oplismenus hirtellus* subsp. *undulatifolius*

Mehrhoff informed the group of a species that was recently recognized as a problem in Maryland and Virginia. There are only 11 sites in the nation where the species is found, all in Maryland and Virginia. The species has a very confusing taxonomy, and the exact taxon is still being worked out. Mehrhoff did not suggest the species was present in New England. The group discussed the potential problems the species could create if it were to become further established

in the United States and in CT. Magnarelli noted that the grass looked like the perfect cover for ticks and mice.

The Council decided to attach Mehrhoff's list of recommendations to the minutes.

The Council decided to also attach the guidelines/early detection documents and the assignments of class to management classes documents to the minutes.

7. International symposium on invasive plants:

Musgrave reported to the group on the progress made in planning an International Symposium at UConn **August 10-12**. The symposium will bring together attendees from Asia, eastern Russia and the United States in a symposium and week-long session themed "Invasive Plants in the Northeast of Asia and America: Trading Problems, Trading Solutions." The Symposium will be convened by the New England Invasive Plant Center.

Musgrave distributed a handout detailing the event, and will redistribute the handout when the website is ready.

8. Other old or new business:

Murray recently received a call about someone selling a species of *Caulerpa*, a federally-designated marine noxious weed. More updates to follow.

Senack is working with community groups to conduct a Japanese Knotweed (*Polygonum cuspidatum*) removal day in Hartford on May 9. More details will be made available as the event approaches.

9. Next meeting: scheduled for (Tuesday) Sept. 8, 2009, 2PM Valley Lab. No meetings are scheduled to occur over the summer as it is the busy season for the nursery industry.

10. Magnarelli moved (Sutherland seconded) to adjourn at 4:00 pm. The Council decided to adjourn the meeting.

Assignments of Plants to Management Classes

The management classes used in this document are based on and compatible with the classes defined in the Connecticut Aquatic Nuisance Species Management Plan (12/1/06). The definitions of these management classes have been adapted below for use with both the terrestrial and aquatic species on Connecticut's Invasive Plant List.

This list is to assist DEP in prioritizing control actions for invasive plants. Manageable, defined categories will allow DEP to focus limited funding and personnel on control activities that will have the most positive impact on Connecticut's economy, landscape, and ecosystems. This list will be revised by DEP with advice from the CT Invasive Plants Council.

Class 1: Limited or Incipient Populations

Includes species that have limited or incipient populations within Connecticut.

NOTE: *Additionally, individual populations of Class 2 species found in new locations should be considered Class 1.*

Primary management actions include:

- ◆ Rapid response efforts for the eradication of new populations
- ◆ Prevention of further introductions/establishment of new populations
- ◆ Prevention of dispersal into new areas
- ◆ Issuance of alerts and educational materials to facilitate detection of new infestations
- ◆ Systematic monitoring of natural waterways, highways, and other areas to detect additional populations
- ◆ Interruption of possible import pathways to Connecticut
- ◆ Interruption of possible export pathways from Connecticut
- ◆ Coordination with neighboring states regarding spread vectors

Scientific Name

Arthraxon hispidus (Thunb.) Makino
Egeria densa Planch.
Heracleum mantegazzianum Sommier & Levier
Hydrilla verticillata (L.f.) Royle
Myriophyllum aquaticum (Vell.) Verdc.
Nymphoides peltata (S.G. Gmel.) Kuntze
Pueraria montana (Lour.) Merr.

Common Name

Hairy jointgrass
Brazilian water-weed
Giant hogweed
Hydrilla
Parrotfeather
Yellow floating heart
Kudzu

Class 2: Established Species, Significant Impact, Some Practical Control Techniques Available

Includes species present and established in Connecticut with known impacts (or potential for impact) that may be mitigated or controlled with appropriate management techniques.

Primary management actions include:

- ◆ Prevention of further introductions and dispersal to new waters/land areas, including interrupting possible import and export pathways to/from Connecticut
- ◆ Control of population range
- ◆ Mitigation of impacts (including impacts on species that are rare, threatened or endangered)
- ◆ Resource managers, researchers, and industry representatives working together to find long-term solutions for those species considered to be important for recreation or commercial purposes

Scientific Name

Ampelopsis brevipedunculata (Maxim.) Trautv.

Bromus tectorum L.

Cabomba caroliniana A. Gray

Cardamine impatiens L.

Cynanchum louiseae Kartesz & Gandhi

Cynanchum rossicum (Kleo.) Borhidi

Euphorbia cyparissias L.

Euphorbia esula L.

Iris pseudacorus L.

Lepidium latifolium L.

Ligustrum obtusifolium Sieb. & Zucc.

Lythrum salicaria L.

Myriophyllum heterophyllum Michx.

Myriophyllum spicatum L.

Najas minor All.

Polygonum perfoliatum L.

Polygonum sachalinense F. Schmidt ex Maxim.

Potamogeton crispus L.

Ranunculus ficaria L.

Trapa natans L.

Common Name

Porcelainberry

Drooping brome-grass

Fanwort

Narrowleaf bittercress

Black swallow-wort

Pale swallow-wort

Cypress spurge

Leafy spurge

Yellow iris

Perennial pepperweed

Border privet

Purple loosestrife

Variable-leaf watermilfoil

Eurasian watermilfoil

Brittle water-nymph

Mile-a-minute vine

Giant knotweed

Crispy-leaved pondweed

Fig buttercup

Water chestnut

Class 3: Established species, Significant Impact, No Known Effective or Practical Control Techniques Available

Includes species established in Connecticut, with known impacts (or potential for impact), but with no known available effective or appropriately effective management techniques.

NOTE: This category also includes some species that are considered to be so widespread that known control techniques are not feasible.

Primary management actions include:

- ◆ Prevention of further introductions, including interruption possible import/export pathways from Connecticut
- ◆ Mitigation of impacts (including impacts on species that are rare, threatened or endangered)
- ◆ Further evaluation and research of potential control methods

Scientific Name

Acer platanoides L.
Ailanthus altissima (Mill.) Swingle
Alliaria petiolata (M. Bieb.) Cavara & Grande
Berberis thunbergii DC.
Berberis vulgaris L.
Celastrus orbiculatus Thunb.
Centaurea biebersteinii DC
Elaeagnus umbellata Thunb.
Euonymus alatus (Thunb.) Sieb.
Frangula alnus Mill.
Lonicera japonica Thunb.
Lonicera maackii (Rupr.) Maxim.
Lonicera morrowii A. Gray
Lonicera X bella Zabel
Lysimachia nummularia L.
Microstegium vimineum (Trin.) A. Camus
Phalaris arundinacea L.
Phragmites australis (Cav.) Trin.
Polygonum caespitosum Blume
Polygonum cuspidatum Siebold & Zucc.
Rhamnus cathartica L.
Robinia pseudo-acacia L.
Rosa multiflora Thunb.
Rubus phoenicolasius Maxim.
Tussilago farfara L.

Common Name

Norway maple
 Tree of heaven
 Garlic mustard
 Japanese barberry
 Common barberry
 Oriental bittersweet
 Spotted knapweed
 Autumn Olive
 Winged euonymus
 Glossy buckthorn
 Japanese honeysuckle
 Amur honeysuckle
 Morrow's honeysuckle
 Bell's honeysuckle
 Moneywort
 Japanese stilt grass
 Reed canary grass
 Common reed
 Bristled knotweed
 Japanese knotweed
 Common buckthorn
 Black locust
 Multiflora rose
 Wineberry
 Coltsfoot

*Glossostigma cleistanthus**

* Not on CT Invasives or Banned Lists—

Mud Mat*

(Listed in ANS Plan)

Class 4: Established Species, Impacts Unclear

Includes species that are established in the waters/land areas of Connecticut and may have the potential to cause impacts, but current knowledge is insufficient to determine if control actions are warranted.

Primary management actions include:

- ◆ Prevention of further introductions, including interruption of possible import/export pathways from Connecticut
- ◆ Further research to evaluate invasive potential and ecosystem effects
- ◆ Continued monitoring of existing populations to determine rate of spread

Scientific Name

Acer ginnala L.
Acer pseudoplatanus L.
Aegopodium podagraria L.
Amorpha fruticosa L.
Butomus umbellatus L.
Callitriche stagnalis Scop.
Cirsium arvense (L.) Scop.
Datura stramonium L.
Elaeagnus angustifolia L.
Elsholtzia ciliata (Thunb.) Hylander
Froelichia gracilis (Hook.) Moq.
Glechoma hederacea L.
Hesperis matronalis L.
Humulus japonicus Sieb. & Zucc.
Impatiens glandulifera Royle
Kochia scoparia (L.) Schrader
Ligustrum ovalifolium Hassk.
Ligustrum vulgare L.
Lonicera tatarica L.
Lonicera xylosteum L.
Lychnis flos-cuculi L.
Lysimachia vulgaris L.
Marsilea quadrifolia L.
Miscanthus sinensis Andersson
Myosotis scorpioides L.
Nelumbo lutea (Willd.) Pers.
Onopordum acanthium L.
Ornithogalum umbellatum L.
Paulownia tomentosa
(Thunb.) Siebold & Zucc. ex. Steud.

Common Name

Amur maple
Sycamore maple
Goutweed
False indigo
Flowering rush
Pond water-starwort
Canada thistle
Jimsonweed
Russian olive
Crested late-summer mint
Slender snake cotton
Ground ivy
Dame's rocket
Japanese hops
Ornamental jewelweed
Common kochia
California privet
European privet
Tatarian honeysuckle
Dwarf honeysuckle
Ragged robin
Garden loosestrife
European waterclover
Eulalia
Forget-me-not
American water lotus
Scotch thistle
Star-of-Bethlehem
Princess tree

<i>Poa compressa</i> L.	Canada bluegrass
<i>Populus alba</i> L.	White poplar
<i>Rorippa microphylla</i> (Boenn. ex Reichenb.) Hyl. ex A. & D. Löve	Onerow yellowcress
<i>Rorippa nasturtium-aquaticum</i> (L.) Hayek	Watercress
<i>Rosa rugosa</i> Thunb.	Rugosa rose
<i>Rumex acetosella</i> L.	Sheep sorrel
<i>Silphium perfoliatum</i> L.	Cup plant
<i>Solanum dulcamara</i> L.	Bittersweet nightshade
<i>Valeriana officinalis</i> L.	Garden heliotrope

Class 5: Potential Invaders, Impacts Expected to be Severe

Includes species not yet present in CT having high likelihood of introduction and if introduced, expected to have significant biological and/or socio-economic impact.

Primary management actions include:

- ◆ Prevention of introduction to the State of Connecticut
- ◆ Coordination with neighboring states if species occurs in those states

Scientific Name

Carex kobomugi Owhi
Eichhornia crassipes (Mart.) Solms
Glyceria maxima (Hartman) Holmberg
Pistia stratiotes L.
Salvinia molesta Mitchell complex
Senecio jacobaea L.

Common Name

Japanese sedge
Common water-hyacinth
Reed mannagrass
Water lettuce
Giant salvinia
Tansy ragwort

Guidelines for use of Early Detection Observation Reporting Form

This form is to be used to report the presence of state-listed early-detection invasive plants in Connecticut.

You can submit your observations by using the online version of this form (available at www.hort.uconn.edu/mam), or you can mail a copy to the address at the bottom of this page. Please do not submit your data using both methods— your observations and reports will be responded to in the same manner regardless of the method used.

Although we cannot always respond personally to every report we receive, someone from CT DEP or the University of Connecticut may contact you at the e-mail address or phone number you provide to discuss your observation in greater detail.

Thank you for submitting your observation!

Please submit this form online, or mail to:

Invasive Plant Control Program
CT DEP-Inland Fisheries
79 Elm Street, 6th Floor
Hartford, CT 06106



CT Early Detection Observation Form

Please use this form only to report new observations of state-listed high-priority or new early detection invasive plant species.

Observer Contact Information

First: _____ Last: _____

E-mail address: _____@_____

Phone number (required if no e-mail provided): (____) ____ - _____

Date of observation: ____/____/____
Day Month Year

Location of observation:

Town: _____

County: _____ (please provide if known)

State: Connecticut Other _____

Land ownership: Public Private Unknown

Species information:

Plant species observed: _____

Additional Information:

Is the population near a road, hiking trail, picnic area or other frequently used area?
 Yes No

Habitat type (check all that apply):

- | | |
|--------------------------------------|---|
| <input type="checkbox"/> Wetland | <input type="checkbox"/> State or town park |
| <input type="checkbox"/> Dry soil | <input type="checkbox"/> Road or trailside |
| <input type="checkbox"/> Forest | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Grass | |
| <input type="checkbox"/> Garden/yard | |

Please submit this form online, or mail to:

Invasive Plant Control Program
CT DEP-Inland Fisheries
79 Elm Street, 6th Floor
Hartford, CT 06106



(over)

WANTED

Mile-a-minute Vine (MAM)

(*Persicaria perfoliata*, formerly *Polygonum perfoliatum*)



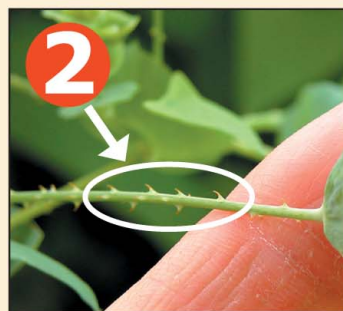
Mile-a-minute Vine is a highly invasive annual weed spreading north and east across Connecticut, Massachusetts, New York and Rhode Island. It outcompetes and overgrows native species, causing ecological and economic harm. It climbs and scrambles over trees and posts, shading out other plants (see photo at left). A single vine can grow up to 6 inches per day.

Please help us find, track and control this invasive plant.

THREE IDENTIFYING TRAITS:



1
Triangular leaves
(often nearly equilateral)



2
Small curved barbs
along stems

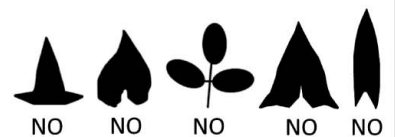


3
Saucer-shaped leaves (called ocrea) at stem nodes



In summer, MAM fruits ripen from green to metallic blue

Leaf shapes of other vines; these species do not harm ecosystems and should **not** be reported:




Photos courtesy of Todd Mervosh, Les Mehrhoff, Hope Leeson, Judy Hough-Goldstein and Renée Sullivan

If you observe a plant with all 3 traits, note its location and report your findings:

Contact the Connecticut Invasive Plant Working Group (CIPWG) at:
860-486-6448 (Donna Ellis, University of Connecticut)

-or-

Visit www.hort.uconn.edu/mam (click "Report MAM")

 University of Connecticut

Comments on the Connecticut list of Invasive and Potentially Invasive Plants

Les Mehrhoff

14 APR 2009

Raise from Potentially Invasive to Invasive:

<i>Ampelopsis brevipedunculata</i>	Porcelainberry	Vitaceae
<i>Bromus tectorum</i>	Drooping brome-grass	Poaceae
<i>Froelichia gracilis</i>	Slender snake cotton	Amaranthaceae
<i>Polygonum cespitosum</i>	Bristled knotweed	Polygonaceae
<i>Rubus phoenicolasias</i>	Wineberry	Rosaceae

Drop??:

<i>Elaeagnus angustifolia</i>	Russian olive	Elaeagnaceae
(does not usually escape; similarity; common name problem)		
<i>Glyceria maxima</i>	Reed manna grass	Poaceae
(voucher specimen can't be located)		
<i>Rosa rugosa</i>	Rugosa rose	Rosaceae
(problem only near the coast)		

Keep:

<i>Tussilago farfara</i>	Coltsfoot	Asteraceae
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Add as Potentially Invasive??:

<i>Glossostigma cleistanthum</i>	Mudmat	Scrophulariaceae
<i>Oplismenus hirtellus</i>		Poaceae
subsp. <i>undulatifolius</i>	Wavyleaf basket grass	
<i>Phellodendron amurense s. l.</i>	Amur cork tree	Rutaceae
<i>Pyrus calleryana</i>	Callery pear; Bradford Pear	Rosaceae

Questions on distribution and/or status in CT:

<i>Actinidia arguta</i>	Hardy kiwi, Tara vine	Actinidiaceae
<i>Akebia quinata</i>	Fiveleaved akebia, Chocolate vine	Lardizabalaceae
<i>Miscanthus sacchariflorus</i>	Amur silvergrass	Poaceae
<i>Rhodotypos scandens</i>	Jetbead	Rosaceae
<i>Symplocos paniculata</i>	Sapphire-berry	Symplocaceae
<i>Syringa reticulata</i>	Japanese tree lilac	Oleaceae

Nomenclature issue – do we need a policy about our nomenclatural standard?:

Polygonum vs. *Persicaria*, *Fallopia*

Glossostigma diandrum vs. *G. cleistanthum*

Common name use problem:

Star of Bethlehem (*Onithogalum umbellatum* vs. *Ornithogalum* 'Bethlehem')

Les.mehrhoff@uconn.edu

CT Invasive Plants Council
Tuesday, September 8, 2009
2 pm, Valley Laboratory
Windsor, CT

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

Others present: Donna Ellis, Logan Senack, Nancy Murray, Jason Vokoun, Nicholas Reif

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

2. The minutes for the 4/14/09 meeting were reviewed. A misspelled word (“*rugosa*”) in section 5, page 3 was noted. Hyatt moved (Mehrhoff seconded) to approve the minutes with the error corrected. **The Council decided to approve the minutes.**

Paul Larson arrived at 2:07 pm.

3. Legislative Recap

a. Hyatt reported that an amendment to the Invasive Plant Cooperative Agreement between UConn and DEP has extended the agreement through June 30, 2010. DEP and UConn worked quickly to extend the agreement before the deadline passed.

b. The group discussed the current state of invasive plant work at DEP, since the \$500,000/yr in funding for invasive plant work at DEP has been removed from the newly passed state budget. Hyatt reported that extending activity on invasive plants is not likely at this time. Magnarelli reminded the group that he and Sutherland sent a letter to DEP when the funding was first awarded, urging DEP to spend the appropriated money quickly, and noted that the lack of action and use of the funds may have contributed to the loss of funds for the program, especially after the Grants to Municipalities Program was cancelled with no funds being spent. Murray reported that the agreements with the municipalities for that program were almost completed and ready to be sent out, but that they could not get signed once the CT budget situation deteriorated. Hyatt reported that once the Request For Proposals (RFP) for the Grants to Municipalities Program went out, the funds were supposed to remain with DEP, but they were swept as the budget situation worsened.

c. Prelli reported that the operating budget for the Department of Agriculture will be decreased by 60%, which may necessitate reducing or changing the process of inspections for invasive aquatics in pet stores.

Tom McGowan arrived at 2:20 pm.

4. DEP Updates

Hyatt provided several updates to the group regarding other invasives activities at DEP.

a. Water Chestnut:

DEP is continuing work on the control of Water Chestnut in drainage areas of the Connecticut River. Work this year was impeded by high flows, but Water Chestnut was removed from all but 2 sites. Fewer plants were reported this year than in any other preceding year, continuing the trend of lower plant populations over time in controlled areas. DEP continues to locate and remove plants from the Still River, Lake Lillinonah, the Housatonic River watershed area, and the Hartford Flood Control Ponds on the Connecticut River (DEP is following up on previous chemical treatment at this location).

b. Phragmites:

DEP is continuing work on 2 large Phragmites projects in Groton and Sharon, funded by WHIP grants, in addition to currently ongoing Phragmites control work elsewhere.

c. Supplemental Environmental Projects Fund:

Hyatt reported that the SEP account can be used for invasive species control work, especially for the rapid response to new invasions of invasive species. DEP is currently considering using funds from this account to fund the top three invasive species control proposals from the Grants to Municipalities Program that was cancelled earlier in the year. A Water Chestnut control project may also be funded by this account.

d. Miscellaneous:

- A grant from the United States Fish and Wildlife Service (USFWS) for \$42,000 that was formerly to be used to hire staff will now be used to fund the Aquatic Nuisance Species (ANS) cooperative agreement between DEP and the Institute of Water Resources at UConn.

- The issue of enforcement of the invasive species law at DEP is still unresolved. Murray has not been trained to do civil enforcement of the invasive species law, but will hopefully be trained in the near future.

- Murray reported that Ken Metzler (DEP Ecologist) has retired. As a result, Murray is working on some of his projects, but is currently spending 60-70% of her time on invasives.

- Hyatt reminded the group that the Bureau of Natural Resources considers three issues main priorities. They are:

1. Loss of habitat due to development
2. Invasive species and associated ecological effects
3. Diminishment and loss of core constituency due to loss of hunters and anglers

- Hyatt introduced scientists from the UConn Department of Natural Resources and the Environment to provide an update to the group on the status of *Hydrilla verticillata* research and control in CT. Dr. Jason Vokoun (Associate Professor) and Nicholas Reif (Masters student) delivered a presentation titled “*Evaluating Multiple Control Methods: Hydrilla Verticillata in the Silvermine River System*”. After the presentation, those present were able to ask questions and discuss the presentation with Dr. Vokoun and Reif. Vokoun

and Reif thanked the Council for inviting them, and Musgrave thanked Vokoun and Reif for their presentation.

5. Invasive Plant Coordinator Update

Senack provided the group with an update on his activities over the summer, including the results of a campaign asking the public to help search for and report mile-a-minute vine in Connecticut. Senack reported that increased media coverage and sustained publicity had generated a high volume of responses from the public. A joint press release from DEP and UConn, along with other mile-a-minute activities, resulted in 7 CT newsletter, magazine, and other non-daily periodical sources publishing information about mile-a-minute vine, at least 28 CT newspaper articles about mile-a-minute vine, and 3 television news stories on 3 separate news networks. Senack has worked with Donna Ellis at UConn and with state and town staff, volunteers, and non-profit gardening organizations to distribute 8,200 postcards, 430 flyers, and 250 posters about mile-a-minute to businesses, residents, and the general public at various events in Connecticut. The increased attention has resulted in over 238 reports of suspected mile-a-minute populations from members of the public in CT. Most of the reports are negative (other species confused with mile-a-minute), but several new populations and three populations in new towns have been found using this system.

6. International Symposium on invasive plants update

An International Symposium on invasive plants examining the exchange of invasive species between the northeastern United States and northeastern Asia took place at UConn in August. Musgrave reported that the symposium went well and that an international collaborative working group was set up as a result of the event.

7. Invasives List review and next steps*

Mehrhoff provided the group with an updated list of species he would like to discuss. Mehrhoff stressed that he is not proposing banning any of the species on the list at this time.

Mehrhoff also requested that the group consider the issue of selecting a defined source of reference for invasive plant nomenclature, as species names can change over time, leading to confusion as to which name should be used. Additionally, Mehrhoff requested that the group discuss issues which arise when non-invasive and invasive plants share common (but not scientific) names.

Mehrhoff will prepare more detailed information about the first 8 species on his list for the October meeting.

Prelli left the meeting at 3:41.

8. Meeting frequency discussion, goals for remainder of the year

The Council discussed plans for the remainder of the year and for preparing the Annual Report. The Council is only required to meet twice per year but agreed to continue to meet monthly to prepare the annual report and to discuss the update to the invasive species list.

9. Chairman succession and nominating committee

Musgrave reported that it is time for the Council to find a new Chairman since she has chaired meetings for the past two years. Musgrave requested that Larson and Sutherland work on the nominating committee and prepare suggestions for the October meeting.

10. Other old or new business

Mehrhoff asked that the Council consider adopting a formal definition of “species”. Mehrhoff feels that a clearer definition of “species” is needed.

Murray reported to the group that a plant labeled “*Myriophyllum propium*” has been made available at some CT stores for use in water gardens. The species *M. propium* does not appear in any of the scientific literature and the actual species of the plants for sale is unknown. Research at the CT Agricultural Experiment Station (CAES) indicated that the plants are not mislabeled *Myriophyllum aquaticum*, but the species appears very similar and may be equally aggressive. *M. propium* does not appear on any state list, so as a precaution CAES has put out an advisory suggesting the plant not be purchased until more information can be obtained.

Musgrave reported that there is a definite downside to having cultivars automatically included in a species ban. The blanket banning of Barberry and Winged Euonymus by Massachusetts and other states has made it more difficult to get grant funding from USDA for the development of sterile cultivars of these species. Musgrave also reported that USDA is reluctant to fund research on these species now because all cultivars are automatically banned in some states, making the marketing of future sterile cultivars problematic.

Ellis noted that one of the deliverables of the Invasive Plant Cooperative Agreement between DEP and UConn is that Senack will provide recommendations on inspections based on reports from CAES invasive plant inspections. Ellis expressed concern that to date Senack has not received enough information from the reports to make recommendations.

McGowan requested that the Council discuss at a future meeting a new Minnesota/Wisconsin law requiring boaters to inspect boats before leaving a boat launch and again before boats enter a new body of water. Additionally, McGowan requested that the council discuss and make recommendations about differences between town and state level ordinances for boats and boat launches, and that the IPC consider taking action to assist/support towns drafting their own ordinances for invasive plant prevention on a larger statewide level.

11. Next meeting: Tuesday Oct. 13, 2009, 2pm Valley Lab, Windsor, CT

12. Adjournment: Goodwin moved (McGowan seconded) to adjourn at 4:06 pm. The Council decided to adjourn the meeting.

Comments on the Connecticut list of Invasive and Potentially Invasive Plants

Les Mehrhoff

14 APR 2009 (rev. 8 SEP 2009)

Raise from Potentially Invasive to Invasive:

<i>Ampelopsis brevipedunculata</i>	Porcelainberry	Vitaceae
<i>Bromus tectorum</i>	Drooping brome-grass	Poaceae
<i>Froelichia gracilis</i>	Slender snake cotton	Amaranthaceae
<i>Polygonum cespitosum</i>	Bristled knotweed	Polygonaceae
<i>Rubus phoenicolasias</i>	Wineberry	Rosaceae

Drop??:

<i>Elaeagnus angustifolia</i>	Russian olive	Elaeagnaceae
(does not usually escape; similarity; common name problem)		
<i>Glyceria maxima</i>	Reed manna grass	Poaceae
(voucher specimen at CONN can't be located. Duplicate of this has been tentatively Identified by grass specialist from Canada, Stephen Darbyshire, as hybrid.)		
<i>Rosa rugosa</i>	Rugosa rose	Rosaceae
(problem only near the coast)		

Keep:

<i>Tussilago farfara</i>	Coltsfoot	Asteraceae
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Add as Potentially Invasive??:

<i>Glossostigma cleistanthum</i>	Mudmat	Scrophulariaceae
<i>Oplismenus hirtellus</i>		Poaceae
subsp. <i>undulatifolius</i>	Wavyleaf basket grass	
<i>Phellodendron amurense s. l.</i>	Amur cork tree	Rutaceae
<i>Pyrus calleryana</i>	Callery pear; Bradford Pear	Rosaceae

Questions on distribution and/or status in CT:

<i>Actinidia arguta</i>	Hardy kiwi, Tara vine	Actinidiaceae
<i>Akebia quinata</i>	Fiveleaved akebia, Chocolate vine	Lardizabalaceae
<i>Miscanthus sacchariflorus</i>	Amur silvergrass	Poaceae
<i>Rhodotypos scandens</i>	Jetbead	Rosaceae
<i>Symplocos paniculata</i>	Sapphire-berry	Symplocaceae
<i>Syringa reticulata</i>	Japanese tree lilac	Oleaceae

Nomenclature issue – do we need a policy about our nomenclatural standard?:

Polygonum vs. *Persicaria*, *Fallopia*

Glossostigma diandrum vs. *G. cleistanthum*

Common name use problem:

Star of Bethlehem (*Onithogalum umbellatum* vs. *Ornithogalum* 'Bethlehem')

Les.mehrhoff@uconn.edu

CT Invasive Plants Council
Tuesday, October 13, 2009
2 pm, Valley Laboratory
Windsor, CT

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

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

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

2. The minutes for the 9/8/09 meeting were reviewed. Prelli moved (second: Larson) to approve the minutes. **The Council decided to approve the minutes as submitted.**

Items 3 and 4 were deferred until Mehrhoff arrived.

Item 5 was deferred until McGowan arrived.

6. Chairman succession and nominating committee (Sutherland, Larson)

The nominating committee (Sutherland and Larson) has not identified a person to serve as chairman for the next cycle. They hope to have suggestions for the November meeting.

Tom McGowan arrived at 2:05 pm.

5. Invasive plants and boat inspections (McGowan)*

McGowan shared his correspondence with Senator Roraback's office regarding the enforcement of Sect. 15-180 of the CT General Statutes (transport of vegetation on boats and boat trailers). The Office of Legislative Research (OLR) prepared a summary report for Roraback regarding enforcement of the invasive plant law (P. Frisman, Oct. 8, 2009*). The report noted that there would need to be a provision in the state law that allows state troopers to enforce the invasive plant law—currently enforcement authority resides with the Commissioner of the Department of Environmental Protection (DEP). McGowan stated that further defining this enforcement authority would be a sensible and necessary step to the law actually being enforceable.

Hyatt noted that the OLR report actually did not mention Sect. 15-180. Currently, this section of the law is enforceable by DEP but is listed as a misdemeanor, not an infraction, requiring both the offender and the officer to appear in court. Sect. 15-180 would need to be added to the list of infractions.

Sutherland clarified that the DEP Commissioner would not have to actually give away authority for enforcement of this section—other law enforcement officers such as local/state police could share enforcement. The group discussed what would be needed to have the Commissioner share authority with local officers and whether an actual legislative change would be needed. It was unclear from the OLR report whether the DEP Commissioner can give the authority to local officials without a change in the state law. Prelli noted that the OLR report is not meant to be

taken as a definitive legal opinion and asked to make sure that other legal opinions are sought before acting, especially opinions from the Legislative Commissioner's Office (LCO) and DEP's legal staff. Prelli also expressed concern that giving blanket authority to constables/local officers could be problematic, especially since most officers will not have any specialized knowledge of invasive plants.

McGowan requested that the Council encourage the DEP Commissioner to find proper additional personnel to enforce the invasive plant law, especially as it relates to boats. McGowan discussed the best way to achieve actual enforcement and the possibility of using Lake Authority personnel under the authority of resident state troopers to additionally enforce the law.

The group discussed the benefits and potential problems if the misdemeanor for violation of Sect. 15-180 became an infraction. Prelli noted that if Sect. 15-180 became an infraction, there might be no escalation of fines whether the person was fined once or several times.

Hyatt noted that the benefits of an enforceable invasive plant boating law would extend beyond Lake Waramaug and could add to preventative measures at other lakes in the area such as Candlewood Lake and Bantam Lake.

Les Mehrhoff arrived at 2:35 pm.

Hyatt will research the process of changing a misdemeanor to an infraction and find out what would be required to have the DEP Commissioner delegate the necessary authority for enforcement of the law and will share his findings with the Council at the November meeting. At present Sect. 22a-381d is not enforceable, but DEP is still looking at developing a method for civil enforcement. A violation of Sect. 22a-381d is already listed with a \$50 fine in the schedule of infractions. Magnarelli reminded the group that right now CAES has no authority whatsoever to enforce the law, although they conduct inspections in garden centers and nurseries. Prelli indicated that the Department of Agriculture (DOAG) could inspect pet shops. If banned species are found, DOAG could do a follow-up inspection to make sure the banned invasive plants were removed.

3. Possible changes to CT list of invasive and potentially invasive plants (Mehrhoff, all)*

Mehrhoff re-distributed the list of his proposed species for discussion*. He also distributed a chart showing the county distributions of the five species he would like the Council to discuss moving from potentially invasive to invasive*. The distribution data for the five species came only from the Invasive Plant Atlas of New England (IPANE) database and herbarium specimens and includes no anecdotal reports. Mehrhoff added that many of the species are even more common than the current records show, but some species may be so widespread that IPANE volunteers may be failing to notice them.

The group discussed the listing process and addressed concerns that there was not enough information to make decisions on the status changes to some species. Mehrhoff reminded the group that there is an established 9-point criteria that must be met for each species to be listed as invasive. The group discussed the list and how best to acquire more information on each species

before making decisions. Musgrave reminded the group that the Council has relied on Mehrhoff to prepare the initial species list since the beginning, and the Council has always made its recommendations based on Mehrhoff's list.

Since Mehrhoff does not have the time available to prepare extensive reports for each plant, the group asked Senack to prepare further detailed information for species 6-9 on Mehrhoff's list and information in brief on species 1-5 for the next meeting. Mehrhoff volunteered to help Senack with the reports and suggested that the Council take a field trip to see some of the invasives in CT.

Mehrhoff also explained his suggestions that the Council discuss dropping some plants from the invasive plant list:

Elaeagnus angustifolia (Russian olive) is not found outside of cultivation in CT based on Mehrhoff's experience and observations. Mehrhoff notes that there is a high level of confusion between Russian olive and autumn olive (*Elaeagnus umbellata*). According to Larson, the nursery industry took both species out of the trade around 15 years ago.

Glyceria maxima (reed mannagrass) was reported at a single location in Massachusetts. Mehrhoff has been trying to track down the specimen, which was sent to the UConn Herbarium, but was unable to find it. Mehrhoff followed up with a duplicate specimen sent to a Canadian herbarium and has heard from the botanists there that the specimen was incorrectly identified and is not *Glyceria maxima*. This means there are no recorded occurrences of the species in any state in New England in the IPANE database or the UConn Herbarium.

Rosa rugosa (rugosa rose): Mehrhoff suggested the Council discuss *Rosa rugosa* because it is invasive, but only along the immediate coast of Connecticut. Mehrhoff asked the Council to discuss this unique distribution issue and determine if the Council can restrict the use of a plant in only a specific area, like coastlines.

Additionally, Mehrhoff discussed a request to Dave Goodwin that the Council recommend removing the ban on *Tussilago farfara* (coltsfoot) because it is used in medicinal gardens. Mehrhoff stated that he feels this is not a good reason to take the species off the list, and wants to know more about the dispersal mechanisms and other traits of the species, especially whether or not the species will persist in forest clearings.

Mehrhoff asked the Council members to review the full list of criteria and reminded everyone he is only discussing changes to the potentially invasive/invasive plant list, not the list of banned plants.

The Council decided to move discussion on the remainder of Mehrhoff's species list to a later meeting so that the first part (species 1 through 9) could be discussed in more detail in November. The Council also decided to move the nomenclatural issue discussion to a later meeting.

7. Musgrave: Annual Report

Musgrave updated the group on the progress of the Annual Report, which is due in December. **The Council decided to include a report on the Grants to Municipalities Program** despite its cancellation, to highlight the response from the municipalities and the work that was done prior to the program's end. Hyatt will prepare the report and a summary of the Grants to Municipalities program for the Annual Report. DEP will also provide a summary of the invasive activities it has been working on, including the *Hydrilla* project and Logan Senack's work. CAES and DOAG will provide updates on training and inspections. The major accomplishments will also be highlighted in the Executive Summary, including the CAES training session for DOAG staff.

8. Other old or new business:

Murray mentioned that the Council may want to discuss Connecticut procedures for importing invasive plants like *Elodea* for research in high schools and at the University of Connecticut. Murray has worked with individuals who wanted to import material from within the United States for research projects. Hyatt noted that Sect. 26-55 covers the importation of all taxa except plants.

9. The next meeting is scheduled for November 12, from 2-4 pm.

November 12 is a Thursday and not a Tuesday as reported on the 10/13 agenda.

10. Sutherland moved (second: Larson) to adjourn the meeting. The Council decided to adjourn at 4:16 pm.



OLR RESEARCH REPORT

October 8, 2009

2009-R-0360

ENFORCEMENT OF THE INVASIVE PLANT LAW

For: Honorable Andrew W. Roraback

By: Paul Frisman, Principal Analyst

You asked if local law enforcement officials can enforce the invasive plant law. You specifically asked if they can prevent people from transporting invasive plants between inland water bodies. The Office of Legislative Research is not authorized to issue legal opinions and this should not be considered one.

SUMMARY

Local law enforcement officials do not have explicit authority to enforce the invasive plant law as it pertains to boaters who carry invasive plants between state water bodies; however, the Department of Environmental Protection (DEP) commissioner does, and she may delegate this authority as she deems necessary. The law would have to be changed to give local law enforcement officials the authority to enforce the law on their own initiative.

INVASIVE PLANT LAW

The law prohibits anyone from moving or distributing, except for research, eradication, or educational purposes, any of 80 named invasive plants, or their reproductive parts. Violators are subject to a fine of up to \$100 per plant (CGS § 22a-381d, as amended by PA 09-52). This prohibition applies to people who fail to clean these plants, or fragments of them, from their boats or boat trailers, and who may thus inadvertently carry the plants from one body of water to another.

ENFORCEMENT OF THE LAW

State Enforcement Authority

By law, the DEP and agriculture commissioners and the Connecticut Agricultural Experiment Station director can enforce the invasive plant statutes.

The DEP commissioner obtains her authority under CGS § 22a-2, which gives DEP jurisdiction over all matters relating to the preservation of the state's air, water, and other natural resources; CGS § 22a-5, which gives the commissioner all powers necessary to carry out state environmental policies; and CGS § 22a-6, which allows her to (1) initiate and receive complaints for actual and suspected violations of, and (2) enforce, statutes, regulations, permits, and orders she administers, issues, or adopts. **Although the commissioner does not have specific power to delegate enforcement of the invasive plant laws, as she does for other laws under CGS § 22a-2a, the broad authority afforded her by CGS 22a-5 would allow her to delegate enforcement of the invasive plant laws as she sees fit.**

We were not able to speak with DEP law enforcement officials about enforcement of the invasive plant law in time for this report, but will provide you any information we receive from them as soon as we get it.

The agriculture commissioner and experiment station director may enforce the invasive plant law in specific circumstances. CGS §§ 22-84 and 22-344 (e), as amended by PA 09-52, respectively authorize the (1) director to inspect nurseries and nursery stock and (2) commissioner to inspect pet shops, for violations of the invasive plant laws. **The act does not address boat and trailer inspections, and spokesmen for the experiment station and the agriculture department state that they do not conduct such inspections.**

Local Enforcement Authority

CGS § 15-154 (a) explicitly authorizes harbor masters and deputy harbor masters; conservation officers and special conservation officers; state, municipal, and special police officers; lake patrolmen; and town marine officers certified for marine police duty to enforce the provisions of the state's boating laws (CGS Chapter 268) and water pollution control laws (CGS Chapter 446k). However, it does not explicitly authorize them to enforce the invasive plant laws (included in CGS Chapter 446i.)

The statute goes on to say that these officers “when engaged in the enforcement of this chapter and chapter 446k...have the authority to stop and board any vessel which is under way or which is moored on the waters of this state for the purposes of” among other things “searching when such officer has probable cause to believe that any provision of any law...relating to boating or water pollution has been violated” (CGS § 15-154 (b)).

Although this provision seems to allow these officers to enforce any law relating to boating, which could include the invasive plant law, it is not clear if this provision can be so interpreted. For one thing, it qualifies this enforcement power to searches conducted while enforcing the boating laws and chapter 446k of the statutes, not chapter 446i. It also limits searches to cases where probable cause exists and to boats under way or moored, and does not refer to boats that have been removed from the water.

Another law specifying the powers and duties of conservation officers and patrolmen enumerates a number of statutes they can enforce, but does not include chapter 446i or the invasive plant statutes (CGS § 26-6).

Because of the lack of explicit statutory authority and the ambiguity of the statute, the legislature might want to amend the law to clarify that these law enforcement officials have the authority to enforce the invasive plant laws at and between inland water bodies.

PF:ts

Comments on the Connecticut list of Invasive and Potentially Invasive Plants

Les Mehrhoff

14 APR 2009 (rev. 8 SEP 2009)

Raise from Potentially Invasive to Invasive:

<i>Ampelopsis brevipedunculata</i>	Porcelainberry	Vitaceae
<i>Bromus tectorum</i>	Drooping brome-grass	Poaceae
<i>Froelichia gracilis</i>	Slender snake cotton	Amaranthaceae
<i>Polygonum cespitosum</i>	Bristled knotweed	Polygonaceae
<i>Rubus phoenicolasias</i>	Wineberry	Rosaceae

Drop??:

<i>Elaeagnus angustifolia</i>	Russian olive	Elaeagnaceae
(does not usually escape; similarity; common name problem)		
<i>Glyceria maxima</i>	Reed manna grass	Poaceae
(voucher specimen at CONN can't be located. Duplicate of this has been tentatively Identified by grass specialist from Canada, Stephen Darbyshire, as hybrid.)		
<i>Rosa rugosa</i>	Rugosa rose	Rosaceae
(problem only near the coast)		

Keep:

<i>Tussilago farfara</i>	Coltsfoot	Asteraceae
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Add as Potentially Invasive??:

<i>Glossostigma cleistanthum</i>	Mudmat	Scrophulariaceae
<i>Oplismenus hirtellus</i>		Poaceae
subsp. <i>undulatifolius</i>	Wavyleaf basket grass	
<i>Phellodendron amurense s. l.</i>	Amur cork tree	Rutaceae
<i>Pyrus calleryana</i>	Callery pear; Bradford Pear	Rosaceae

Questions on distribution and/or status in CT:

<i>Actinidia arguta</i>	Hardy kiwi, Tara vine	Actinidiaceae
<i>Akebia quinata</i>	Fiveleaved akebia, Chocolate vine	Lardizabalaceae
<i>Miscanthus sacchariflorus</i>	Amur silvergrass	Poaceae
<i>Rhodotypos scandens</i>	Jetbead	Rosaceae
<i>Symplocos paniculata</i>	Sapphire-berry	Symplocaceae
<i>Syringa reticulata</i>	Japanese tree lilac	Oleaceae

Nomenclature issue – do we need a policy about our nomenclatural standard?:

Polygonum vs. *Persicaria*, *Fallopia*

Glossostigma diandrum vs. *G. cleistanthum*

Common name use problem:

Star of Bethlehem (*Onithogalum umbellatum* vs. *Ornithogalum* 'Bethlehem')

Porcelainberry

5/15

Ampelopsis brevipedunculata (Syn.: *Ampelopsis heterophylla*)

FA	5	TO	2
LI	2		
NH	3		
NL	3		

Cheatgrass

8/30

Bromus tectorum

FA	5	NH	6
HA	5	NL	6
LI	3	TO	2
MI	2	WI	1

Slender-leaved Snake Cotton

8/25

Froelichia gracilis

FA	4	NH	8
HA	3	NL	2
LI	1	TO	3
MI	2	WI	2

Oriental lady's thumb

8/44

Polygonum cespitosum (Syn.: *Persicaria longiseta*)

FA	9	NH	4
HA	7	NL	2
LI	4	TO	6
MI	2	WI	10

Wineberry

7/40

Rubus phoenicolasias

FA	9	NH	8
HA	6	NL	6
LI	3	TO	2
MI	6		

CT Invasive Plants Council
Tuesday, November 12, 2009
2 pm, Valley Laboratory
Windsor, CT

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

Others present: Donna Ellis, Nancy Murray, Logan Senack, Karen Weeks

1. Musgrave called the meeting to order at 2:04 pm.

2. The minutes for the 10/13/09 meeting were reviewed. Prelli moved (second: Sutherland) to approve the minutes. **The Council decided to approve the minutes as submitted.**

3. Possible changes to CT list of Invasive and Potentially Invasive Plants

As the Council had requested at the 10/13/09 meeting, Senack prepared more information about the first nine species on Mehrhoff's list of species to discuss. Senack met with Mehrhoff three times over the month to gather more information and work out a presentation format, and prepared a short write-up of each species including its current known IPANE distribution data and other information. Mehrhoff presented additional information and photographs to the group as examples of CT and regional populations of the species in question.

After each presentation about a species, the Council discussed the species, the changes proposed, and asked additional questions. The Council then voted to take action on the species discussed.

- The Council reviewed and discussed the status of *Ampelopsis brevipedunculata* (porcelainberry). Hyatt moved (second: Sutherland) that the species listing be changed from Potentially Invasive to Invasive. **The Council voted 9-0 to change the listing of the species from Potentially Invasive to Invasive.**

- The Council reviewed and discussed the status of *Bromus tectorum* (cheatgrass). Due to concerns about insufficient distribution data, **the Council decided to table discussion on this species.**

- The Council reviewed and discussed the status of *Froelichia gracilis* (slender snake cotton). Prelli moved (second: Hyatt) that the species listing be changed from Potentially Invasive to Invasive. **The Council voted 9-0 to change the listing of the species from Potentially Invasive to Invasive.**

- The Council reviewed and discussed the status of *Polygonum cespitosum* (Oriental lady's thumb). Hyatt moved (second: Sutherland) that the species listing be changed from Potentially Invasive to Invasive. **The Council voted 9-0 to change the listing of the species from Potentially Invasive to Invasive.**

- The Council reviewed and discussed the status of *Rubus phoenicolasius* (wineberry). Prelli moved (second: Sutherland) that the species listing be changed from Potentially

Invasive to Invasive. **The Council voted 9-0 to change the listing of the species from Potentially Invasive to Invasive.**

- The Council reviewed and discussed the status of *Elaeagnus angustifolia* (Russian olive). The group discussed the difficulty of separating the species from *Elaeagnus umbellata* (autumn olive) and noted that neither species has been sold by the nursery trade for many years. Prelli moved (second: Mehrhoff) that the species be tabled. **The Council decided to table discussion of this species.**

- The Council reviewed and discussed the status of *Glyceria maxima* (reed mannagrass). Since the species is not yet present in CT but is likely to be invasive if it should become established here, **the Council decided to take no action on this species; the species will remain listed as a Potentially Invasive Plant.**

- The Council reviewed and discussed the status of *Rosa rugosa* (rugosa rose). Due to the species' somewhat unique distribution in coastal areas, Prelli moved (second: Sutherland) that the species remain listed as Potentially Invasive, but that an asterisk be added to its designation stating that the plant is especially aggressive in coastal areas. **The Council decided that the species will remain listed as a Potentially Invasive Plant and decided to add an asterisk to its designation stating that the plant is especially aggressive in coastal areas.**

- The Council reviewed and discussed the status of *Tussilago farfara* (coltsfoot). Prelli moved (second: Larson) to take no action on this species. **The Council decided (9-0) to take no action; the species will remain listed as an Invasive Plant.**

The Council decided to attach Senack's reports about each species to the minutes, with the criteria that each plant meets updated and displayed in the reports.*

After the discussion of the nine species, Murray suggested that the Council discuss listing the entire genus of *Myriophyllum* as invasive. Further, Murray reported that the situation regarding the sale of plants labelled *Myriophyllum propium* in CT is still unresolved. The species name does not appear in any scientific literature and is difficult to differentiate from other species (genetic tests are usually needed). The plant is mislabeled or may be a cultivar of another *Myriophyllum* sp. Because of the need to devote the December 2009 meeting to finalizing the Annual Report, the group agreed to return to this issue in one of the 2010 meetings.

4. Invasive plant infractions/misdemeanors and boat inspections

Hyatt reported to the group on that the misdemeanor for transporting plant material on boats and boat trailers (Sect. 15-180) is enforceable at the municipal level by DEP conservation officers and by municipal officers.

DEP recommends that the misdemeanor should be changed to an infraction, although the question of who should have enforcement authority needs to be resolved. Lake Authorities do not have the authority to enforce Sect. 15-180 because the actual act of transporting the plants

occurs on land (boat launch, parking lots), not on the water where the Lake Authorities have some enforcement powers.

Hyatt moved (second:McGowan) that the IPC recommend to the Legislature that the misdemeanor for Sect. 15-180 be changed to an infraction. **The Council decided (9-0) to recommend that the misdemeanor for Sect. 15-180 be changed to an infraction.**

Prelli suggested that the Council should testify in support of the change if it does come up in the Legislature.

McGowan discussed the possibility of enabling Lake Authority enforcement officers to enforce this law at boat launches, parking lots or at the water's edge. Prelli expressed concern that an improperly worded change could have unintended consequences, such as giving Lake Authority enforcement officers the authority to enforce the law anywhere in the state or on other water bodies.

McGowan will send Hyatt and Prelli the language for the proposed change and will report back at the next meeting.

5. Chairman nominating committee report

Sutherland and Larson reported to the group that they propose Musgrave serve an additional 1-year extension on her term as Chairman of the Council. Larson moved (second: Magnarelli) to elect Musgrave as Chairman for an additional one-year term. **The Council voted (8-0-1, Musgrave abstaining) to elect Musgrave for an additional one-year term.**

Goodwin moved (second: Sutherland) to elect Prelli as Vice Chairman for an additional one-year term. **The Council voted (8-0-1, Prelli abstaining) to elect Prelli for an additional one-year term.**

6. DEP attachments to Annual Report

Aside from a few wording changes, there were no edits to the DEP attachments to the Annual Report.

7. Annual Report

Musgrave reported that the preparations for the Annual Report are continuing. The Council decided to include in the Annual Report the fact sheets Senack prepared for any of the species for which action was taken at this meeting.

Additionally, Senack will be responsible for delivering the copies of the Report to the various offices in Hartford.

8. Greenwich Land Trust

The group discussed a copy of a letter from David Wierdsma of Greenwich regarding the increasing presence of invasive plants at the Allen Preserve in Greenwich, a property deeded to the Greenwich Land Trust to be "a sanctuary for wild flowers and plants indigenous to the State of Connecticut". The letter described the problems that invasive plants, including Japanese stilt

grass, oriental bittersweet, Japanese honeysuckle, Canada thistle, Norway maple and Japanese barberry, are causing in the Preserve and expressed concern that the land is not being maintained as dedeed.

The Council decided not to include the original letter in the Annual Report but will note that they have received a copy, as it is an example of why municipalities need assistance and funding when dealing with invasive species issues.

Magnarelli left the meeting at 4:05.

9. Other old or new business

Prelli suggested the Council discuss the current status of cultivar research at the next meeting.

Senack reported that the “Wanted” poster encouraging people to look for and report mile-a-minute vine in CT is now also being used by MassWildlife, the Massachusetts Department of Conservation and Recreation, and the Massachusetts Dept. of Agricultural Research (with MA, not CT contact information).

Larson reminded the group that the schedule for next year’s meeting dates should be discussed at the December meeting.

Hyatt and Mehrhoff will be unable to attend the December meeting. Therefore they requested that the cultivar discussion be deferred until one of the 2010 meetings.

10. The next meeting is scheduled for Dec. 8 2-4 pm at the CAES Valley Laboratory in Windsor, CT.

11. Goodwin moved (second: McGowan) to adjourn the meeting. The Council decided to adjourn at 4:16 pm.

Ampelopsis brevipedunculata (Maxim.) Trautv.
porcelainberry/Amur peppervine

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon; 6-9 agreed upon at the 11/12/09 meeting

IPANE Distribution Data as of 10/27/09

Fairfield County, CT:	14
Total occurrences in CT:	28
MA:	29
RI:	6
NH:	1

Known in 5 CT counties. May occur in locations besides those that appear in the IPANE database.

Comments on IPANE/herbarium records from within CT include: “well-established”, “abundant”, “vines extensive; berries abundant”, “extensive vine covering shrubs”, and “not rare”.

Main Problems

“Because it is a vine, *Ampelopsis brevipedunculata* has the ability to grow up and smother native vegetation. The extra weight of this vine on the underlying plant makes it more susceptible to wind and ice damage. *Ampelopsis brevipedunculata* grows rapidly and is difficult to control. The fruit can float, so water can disperse these plants long distances. The seeds are known to have a high germination rate, aiding the establishment of this plant” (IPANE).

Dispersal

Bird dispersed. Fruits may also float. Seeds have high germination rate. Plants can grow up at 15 feet/year and seed may remain viable in soil for several years.

Notes

Denise Savageau, Conservation Director for the Town of Greenwich, reports that porcelainberry is a “huge problem”, not just in Greenwich but along the I-95 corridor. She also reports that she has seen

Species Information- *Ampelopsis brevipedunculata*

invasions as far north as Sharon, CT. IPANE shows 3 records from Sharon as early as 1979 with the comment “well-established”.

Logan Senack and others have also seen substantial populations of this species in Greenwich and Fairfield, and Donna Ellis reports that she has seen vines in Greenwich overtaking *Phragmites* and Oriental bittersweet.

This plant is listed in Massachusetts as “Likely Invasive”.

Literature

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.

IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: www.ipane.org

Robertson, D.J., M.C. Robertson, and T. Tague. 1994. Colonization dynamics of four exotic plants in a northern Piedmont natural area. *Bulletin of the Torrey Botanical Club* 121(2):107-118.

Swearingen, J. 2009. WeedUS Database of Plants Invading Natural Areas in the United States: Porcelainberry (*Ampelopsis brevipedunculata*). Online at: www.invasive.org/weedus/subject.html?sub=3007

Young, Jamie. 2009. Plant Conservation Alliance’s Alien Plant Working Group Least Wanted: Porcelainberry. Online at: www.nps.gov/plants/ALIEN/fact/ambr1.htm

Species Information- *Bromus tectorum*

Bromus tectorum (L.)
cheatgrass/drooping brome-grass

Current Status: Listed as Potentially Invasive, Banned

No status change following the 11/12/09 meeting

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon

IPANE Distribution Data as of 10/27/09

Total occurrences in CT:	58
MA:	20
RI:	4
VT:	2

Known in all 8 CT counties. May occur in locations besides those that appear in the IPANE database.

Main Problems

“*Bromus tectorum* has the ability to draw down soil moisture and nutrients to very low levels, making it difficult for other species to compete. An increased cycle of fires favors annual species at the expense of many perennials. Due to its tendency to mature early and then dry out, *B. tectorum* gains a competitive advantage through the promotion of fire” (IPANE).

Dispersal

“*Bromus tectorum* reproduces by seeds that are dispersed by gravity, wind and other mechanical means. The awns on each of its florets are barbed and capable of piercing and adhering to fur and clothing. This promotes the seed's dispersal through "hitching rides" on animals, people and even vehicles” (IPANE).

Notes

Not evaluated in MA.

Species Information- *Bromus tectorum*

Literature

Hulbert, L. 1955. Ecological studies of *Bromus tectorum* and other annual brome grasses. Ecol. Monogr. 25:181-213.

Mack, R. N. 1981. Invasion of *Bromus tectorum* L. into western North America: an ecological chronicle. Agro-Ecosyst. 7:145-165.

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003. IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: www.ipane.org

Species Information- *Froelichia gracilis*

Froelichia gracilis (Hook.) Moq.
slender snake cotton

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant (Banned)

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon; 6-9 agreed upon at 11/12/09 meeting

IPANE Distribution Data as of 11/02/09

Total occurrences in CT:	32
MA:	25
RI:	1
NH:	4
VT:	4

Known in 7 CT counties. May occur in locations besides those that appear in the IPANE database.

Main Problems

“While this plant is not an immediate threat to most natural areas, it has exhibited the ability to move long distances and persist. It also has the potential of invading sandy coastal areas and pitch pine/scrub oak barrens.” (Directly from IPANE)

Dispersal

Spreads by seed: wind-dispersed and possibly along railroad tracks via train disturbance.

Notes

Herbarium specimen comments include: “numerous individuals”, “locally abundant”, “locally common”, “well established”, “huge population extending for a few miles north and south of exit”, and “profusely emerging from pavement cracks” (*not all comments necessarily from CT specimens; all are from New England specimens*)

Status unknown in MA.

Species Information- *Froelichia gracilis*

Literature:

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.
IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology,
University of Connecticut, Storrs, CT, USA. Online at: <http://www.ipane.org>

Polygonum cespitosum Blume
Oriental lady's thumb/smartweed

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant (Banned)

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

*Criteria 1-5 previously agreed upon; 6-9 agreed upon at 11/12/09 meeting

IPANE Distribution Data as of 11/02/09

Total occurrences in CT: 96
MA: 12
ME: 2
NH: 2

Known in all 8 CT counties. May occur in locations besides those that appear in the IPANE database.

Comments on IPANE/herbarium records from within CT include: "very abundant", "large colony" (several), "abundant", "well-established", and "numerous". 2 records in CT over 76% density in 20 m radius area, 100-999 plants each.

Main Problems

"*Polygonum caespitosum* is usually found in highly disturbed situations. However, it has been seen in large, monotypic stands and can tolerate extreme shade and pH. Thus, this plant has the potential to invade shaded natural areas and to outcompete other native species that thrive in moist, shaded habitats. It can be found on ridge tops and open woods, usually near trails" (IPANE).

Dispersal

Spread by seed- may have been spread by railroads.

Notes

Species Profile- *Polygonum cespitosum*

Based on IPANE field data, this species prefers moist soils in CT. In all the IPANE records there is only 1 plant recorded growing in Xeric (dry) soil in MA.

Literature:

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.

IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: <http://www.ipane.org>

Muhlenbach, V. 1979. Contributions to the Synanthropic (Adventive) Flora of the Railroads in St. Louis, Missouri, U.S.A. *Annals of the Missouri Botanical Garden* 66(1): 1-108.

Sultan, S.E., A.M. Wilczek, S.D. Hahn and B.J. Brosi. 1998. Contrasting Ecological Breadth of Co-Occurring *Polygonum* species. *Journal of Ecology* 86:363-383.

Zika, P.F., R.J. Stern and H.E. Ahles. 1983. Contributions to the Flora of Lake Champlain Valley, New York and Vermont (in Torrey). *Bulletin of the Torrey Botanical Club* 110(3): 366-369.

Rubus phoenicolasius Maxim.
wineberry/wine raspberry

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant (Banned)

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon; 6-9 agreed upon at the 11/12/09 meeting

IPANE Distribution Data as of 11/02/09:

Total occurrences in CT:	92
MA:	11
RI:	18
NH:	1

1 field record New Milford: 100-999 plants 51-75% cover

1 herbarium record “spreading from an old garden to fence rows” (1919), remote from habitations or cultivation (1907), “forming a large colony and well established” (1906), “Plentiful in many places in the town” (1950) (all from CT), several “escaped” from other places in New England

Main Problems:

“*Rubus phoenicolasius* can rapidly form dense monotypic thickets that crowd out native vegetation. Since the fruits are tasty, it is often not recognized as a problem. Copious fruit production and subsequent bird-dispersal contribute to its spread across the landscape” (IPANE).

Dispersal:

Produces high number of fruits. Bird-dispersed (small mammals?).

Notes:

This plant is listed in Massachusetts as “Likely Invasive”.

Virus indicator (and therefore host?) for raspberry yellow spot and wineberry latent virus.

Species Information- *Rubus phoenicolasius*

Literature:

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.
IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology,
University of Connecticut, Storrs, CT, USA. Online at: www.ipane.org

Spencer, Neal. 2009. Plant Conservation Alliance's Alien Plant Working Group Least Wanted:
Wineberry. Online at: www.nps.gov/plants/alien/fact/ruph1.htm

Elaeagnus angustifolia L.

Russian olive

Current Status: Listed as Potentially Invasive, Banned

No status change following the 11/12/09 meeting

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon

IPANE Distribution Data as of 11/09/09

Total in CT	17
MA:	6
ME:	2
RI:	2
NH:	1

Known in 5 CT counties. May occur in locations besides those that appear in the IPANE database.

Many herbarium records contain notes such as: “probably planted”, “cultivated”. One herbarium specimen has a note of “escaped”, another says “common”. Most IPANE field records show only a single plant.

Main Problems

“Although *Elaeagnus angustifolia* is not considered to be invasive in New England at this time, in the western part of the United States it is considered invasive as well as a noxious weed in some states. It grows especially well in riparian situations and has been documented as out-competing the native plains cottonwood (*Populus deltoides*). It has been planted along roads and highways in New England because of its drought and salt tolerance. Nitrogen-fixing nodules allow this plant to survive in adverse conditions. Autumn olive (*Elaeagnus umbellata*), its invasive relative, has a similar biology and is already widely invasive in New England.” (Direct from IPANE)

Dispersal

Birds and small mammals spread and disperse fruits.

Species Profile- *Elaeagnus angustifolia*

Notes

Appears similar to (and is frequently confused with) Autumn Olive (*Elaeagnus umbellata*).

Examined but not listed in MA.

Literature

Christensen, E.M. 1963. Naturalization of Russian olive (*Elaeagnus angustifolia* L.) in Utah. American Midland Naturalist 70(1):133-137.

Knopf, F.L and T.E. Olson. 1984. Naturalization of Russian-olive: implications to Rocky Mountain wildlife. Wildlife Society Bulletin 12:289-298.

Lesica, P. and S. Miles. 1999. Russian olive invasion into cottonwood forests along a regulated river into north-central Montana. Canadian Journal of Botany 77:1077-1083.

Llinares, F., D. Munozmingarro, J.M. Pozuelo, B. Ramos and F.B. Decastro. 1993. Microbial inhibition and nitrification potential in soils incubated with *Elaeagnus angustifolia* L. leaf-litter. Geomicrobiology Journal 11 (3-4): 149-156.

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003. IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: www.ipane.org

Glyceria maxima (Hartm.) Holmb.
reed mannagrass

Current Status: Listed as Potentially Invasive, Banned

No status change at 11/12/09 meeting

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

*Criteria 1-5 previously agreed upon

IPANE Distribution Data as of 11/04/09

CT: Not Found

MA: 2

2 sites in MA: One is “a virtual monoculture of over one-half acre in this area” (1992 herbarium specimen). Other specimen has no comments (Mehrhoff, Ipswich River Wildlife Sanctuary, 1999)

Main Problems

“*Glyceria maxima* forms large, dense monospecific stands capable of crowding out native wetland vegetation. Because it is both a poor food source and a poor nesting substrate for wetland wildlife, it has significant potential to negatively affect wetland habitat dynamics” (IPANE).

Dispersal

Spreads by rhizomes- possibly only rarely by seed.

Notes

Listed as “Likely Invasive” in MA.

Literature

Anderson, J.E. and A.A. Reznicek. 1994. *Glyceria maxima* (Poaceae) in New England. *Rhodora* 96 (885): 97-101.

Species Information- *Glyceria maxima*

Buttery, B.R. and J.M. Lambert. 1964. Competition between *Glyceria maxima* and *Phragmites australis* in the region of Surlingham Broad I. The competition mechanism. *J. of Ecology* 53: 163-181.

Dore, WG. 1947. *Glyceria maxima* in Canada. *Canadian Field Naturalist*. 61: 174.

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003. IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: <http://www.ipane.org>

Rosa rugosa (Hartm.) Holmb.
rugosa rose

Current Status: Listed as Potentially Invasive*

No status change at 11/12/09 meeting

***Note: This plant is especially aggressive in coastal areas (note added at 11/12/09 meeting)**

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon

IPANE Distribution Data as of 11/04/09

Total occurrences in CT:	13
MA:	78
ME:	44
NH:	10
RI:	44
VT:	2

Known in the 4 coastal CT counties. May occur in locations besides those that appear in the IPANE database.

Comments on IPANE/herbarium records from within CT include: 7 sites in New England where *Rosa rugosa* is listed as covering greater than 50% of the area of a 10m radius circular plot. Populations at these sites range from estimates of 20-99 to estimates of 100-999.

Main Problems

Forms dense stands which reduce available habitat for native plants, particularly along beaches.

Dispersal

By seed (large rose hips, which can float at least 8 weeks). Stems may also bend back to the ground and root.

Species Profile- *Rosa rugosa*

Notes

Examined but not listed in MA.

Literature

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.

IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: www.ipane.org

Ueda, Y., S. Nishihara, H. Tomita and Y. Oda. 2000. Photosynthetic response of Japanese rose species *Rosa bracteata* and *Rosa rugosa* to temperature and light. *Scientia Horticulturae* 84 (3-4): 365-371.

Tussilago farfara L.
coltsfoot

Current Status: Listed as Invasive, Banned

No status change at 11/12/09 meeting

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-9 previously agreed upon

IPANE Distribution data as of 11/05/09

CT:	44
MA:	146
ME:	20
NH:	15
RI:	4
VT:	91

Occurs in all 8 CT counties. May occur in locations besides those that appear in the IPANE database.

Main Problems

“*Tussilago farfara* can form large colonies because of its rhizomes. The colonies can crowd out native species. These rhizomes can go as deep as 3 m (almost 10 ft.) making it difficult to dig out. Since the seeds are wind-dispersed, they have the potential to travel relatively long distances. Also, because this plant flowers early (with the flower stalks sometimes pushing through the snow) it can disperse its seeds earlier than many native plants” (IPANE).

Dispersal

Spreads by rhizomes and by seeds. Wind-dispersed seeds have been reported to travel up to 8 miles. Rhizomes can be 3 m deep in soil, making removal difficult. Well adapted to poor, wet soils, thrives in partial shade but can tolerate full sun.

Species Profile- *Tussilago farfara*

Notes

Regarding medicinal use:

- An Ohio State University Extension Center webpage reports that some studies have found that coltsfoot can cause tumors in rats.
- One article in the European Journal of Pediatrics noted that an 18 month old had been made sick by a herbal tea which had been made by his parents, who had inadvertently collected another species of plant which appeared similar to coltsfoot
- Another study examined the death of a 3 month old infant from liver disease whose mother drank a herbal tea (composed of *Tussilago farfara*) daily during pregnancy.

This plant is listed in Massachusetts as “Likely Invasive”.

Literature

Cardina, J, C. Herms, T. Koch, and T. Webster. 2009. *The Ohio Perennial and Biennial Weed Guide*. The Ohio State University Extension Center. Accessed online at: www.oardc.ohio-state.edu/weedguide/

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003. IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: <http://www.ipane.org>

Sperl, W., Stuppner, H., and Gassner, I. 1995. Reversible hepatic veno-occlusive disease in an infant after consumption of pyrrolizidine-containing herbal tea. *Eur J Pediatr.*;154:112–6.

Roulet, M., Laurini, R., Rivier, L., and Calame, A. 1988; Hepatic veno-occlusive disease in newborn infant of a woman drinking herbal tea." *J Pediatrics.*;112:433–6.

Update on the CT DEP
Grants to Municipalities Program

A total of 41 applications from 37 municipalities were received, and a total of \$936,403.83 was requested in funding (see below). The DEP Invasive Plant Working Group, composed of nine DEP staff members from various Bureaus and Divisions within DEP, examined the proposals in a careful review process and met to discuss the proposals. The recommendation process was challenging due to the high number of applications, large quantity of well-planned applications, and the limited funds available for projects. Ten projects were recommended for funding. Personal Service Agreements were prepared to transfer the funds to the towns. Unfortunately, the funding allocated for this project was rescinded due to state's ongoing the fiscal crisis. DEP notified all the applicants to inform them that the program was cancelled.

Recommended for funding

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
02-IPC	TOWN OF PLAINFIELD	REMOVAL OF VARIABLE LEAF MILFOIL (Myriophyllum heterophyllum) FROM MOOSUP POND, PLAINFIELD	<u>11191.09*</u>	5000.00	aquatic	variable leaf milfoil	herbicides
			* \$15,000.00 initial request: - project costs were estimated for 40 acres; actual size 20-25 acres based on CAES survey				
06-IPC	TOWN OF SPRAGUE	REMOVAL OF PHRAGMITES AND MULTI-FLORA ROSE FROM THE BALTIC RESERVOIR AND PARK	5750.00	7830.00	both	Phragmites mult-flora rose	mechanical handpulling/cutting herbicides
07-IPC	TOWN OF NEWTOWN	"MILE-A-MINUTE VINE CONTROL IN NEWTOWN OPEN SPACE AREAS ADJACENT HUNTINGTOWN ROAD	10873.91	3624.64	terrestrial	mile-a-minute vine	mechanical handpulling herbicides weed barrier revegetation
17-IPC	TOWN OF REDDING	JAPANESE BARBERRY ERADICATION FROM TOWN OF REDDING CONSERVATION LANDS	13825.00	8668.00	terrestrial	Japanese barberry	cutting torches

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
18-IPC	CITY OF NEW HAVEN	CONTROL OF THE MOST EGREGIOUS INVASIVE PLANTS AT BEAVER PONDS PARK, NEW HAVEN, CT.	47570.00	23025.00	both	Russian olive Japanese barberry multiflora rose oriental bittersweet euonymus black locust tree of heaven Norway maple also some Phragmites	mechanical handpulling/cutting herbicides revegetation
26-IPC	TOWN OF LITCHFIELD	PERMANENT REMOVAL OF FANWORT (CABOMBA CAROLINIANA) FROM BOATING LANES IN THE LOWER BANTAM RIVER USING SUCTION HARVESTING, AND PREPARATION OF A LONGTERM FANWORT CONTROL PLAN.	37500.00	12500.00	aquatic	fanwort variable leaf milfoil Eurasian milfoil Najas minor	suction harvesting plan development
36-IPC	TOWN OF NEW MILFORD	MILE-A-MINUTE (MAM) INVASIVE SPECIES CONTROL PROJECT	<u>8863.00*</u>	6358.00	terrestrial	mile-a-minute vine (primary) multiflora rose (secondary) autumn olive (secondary)	mechanical (handpulling, mowing) herbicides inspections
			* \$14,735.00 initial request: -included private property w/no public access -included ineligible off-site educational workshops				
38-IPC	CITY OF BRIDGEPORT	VETERANS MEMORIAL PARK INVASIVE SPECIES CONTROL PROJECT	36927.00	12309.00	terrestrial	multiflora rose garlic mustard	mechanical (handpulling, cutting) herbicides inspections revegetations

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
40-IPC	TOWN OF HAMPTON	REMOVAL OF INVASIVE PLANT SPECIES FROM SCHOOL ENVIRONMENTAL STUDY AREA	2500.00	4500.00	terrestrial	Autumn olive Japanese barberry multiflora rose oriental bittersweet euonymus garlic mustard tree of heaven	mechanical/handpulling revegetation education

Total funding recommendations: \$175,000.00

Update on the CT DEP
Grants to Municipalities Program

Alternate

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
28-IPC	TOWN OF WINCHESTER	GRANTS TO MUNICIPALITIES FOR THE CONTROL OF INVASIVE PLANTS AND ERADICATION OF INVASIVE AQUATIC PLANTS AT HIGHLAND LAKE, WINSTED, CONNECTICUT.	15000.00	3250.00	aquatic	Eurasian milfoil variable leaf milfoil curly-leaved pondweed	herbicides

Total alternate funding: \$15,000.00

Other proposals

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
01-IPC	TOWN OF WATERTOWN	PURCHASE AND LIBERATION OF TRIPLOID GRASS CARP FOR THE BIOLOGICAL CONTROL OF EURASIAN WATERMILFOIL IN MERRIMAN POND, WATERTOWN, CT.	9800.00	2452.43	aquatic	Eurasian milfoil	grass carp

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
03-IPC	TOWN OF FARMINGTON	Elimination and Control of Invasive Species at Farmington Reservoir Open Space Property.	12937.00	4313.00	terrestrial	multiple	mechanical handpulling/cutting herbicides
04-IPC	FARMINGTON	Elimination and control of invasive species at West District Elementary School	17750.00	5850.00	terrestrial	multiple	mechanical handpulling/cutting herbicides
05-IPC	TOWN OF EAST HARTFORD	BIOLOGICAL CONTROL OF PURPLE LOOSESTRIFE AT FIVE RECREATIONAL WETLAND SITES IN EAST HARTFORD	3600.00	2968.00	aquatic	purple loosestrife	loosestrife beetle
08-IPC	TOWN OF GREENWICH	GREENWICH POINT HABITAT AND WOODLAND RESTORATION	11000.00	6600.00	terrestrial	Japanese honeysuckle oriental bittersweet	mechanical handpulling/cutting revegetation
09-IPC	CITY OF DANBURY	THE CITY OF DANBURY EWM TREATMENT WITH THE NATIVE WEEVIL ON CANDLEWOOD LAKE	37500.00	12500.00	aquatic	Eurasian milfoil	milfoil weevils

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
10-IPC	GRISWOLD	Drawdown effectiveness in Pachaug Pond	9600.00	3264.00	aquatic	fanwort variable leaf milfoil Eurasian milfoil Najas minor	survey only
11-IPC	GRISWOLD	Hopeville Pond aquatic survey of invasive plants	5000.00	1726.00	aquatic	unknown	survey/study only
12-IPC	TOWN OF EAST LYME	PURCHASE AQUATIC WEED HARVESTER TO REMOVE MILFOIL FROM PATTAGANSETT LAKE, EAST LYME, CT.	50000.00	23955.00	aquatic	variable leaf milfoil	harvester
13-IPC	TOWN OF GUILFORD	CONTROL/ERADICATION OF EURASIAN WATER MILFOIL (MYRIOPHYLLUM SPICATUM) IN PUBLIC SWIMMING AREA AT LAKE QUONNIPAUG	13500.00	3600.00	aquatic	Eurasian milfoil	benthic barriers
14-IPC	TOWN OF TRUMBULL	OLD MINE PARK REMOVAL/ERADICATION OF INVASIVE VEGETATION	40000.00	10000.00	both	multiple terrestrials "milfoil"	dredging mechanical

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
15-IPC	CITY OF STAMFORD	ERADICATION OF EUONYMUS ALATUS (THUNB.) SIEBOLD. FROM THE BARTLETT ARBORETUM & GARDENS FOREST, STAMFORD, CT	21775.00	30000.00	terrestrial	Euonymus alatus	handpulling/cutting
16-IPC	TOWN OF KENT	CLAIRE MURPHY RIVERWALK, KENT REMOVAL OF EIGHT INVASIVE SPECIES	30450.00	12400.00	both	Japanese barberry multiflora rose oriental bittersweet honeysuckle border privet garlic mustard gout weed reed canary grass also some Phragmites	manual/mechanical removal
19-IPC	CITY OF SHELTON	REMOVAL AND CONTROL OF AUTUMN OLIVE, MULTIFLORA ROSE, AND ORIENTAL BITTERSWEET ALONG FIELD PERIMETERS, HEDGEROWS, AND PENTWAYS ON THE CITY OF SHELTON KLAPIK FARM PUBLIC OPEN SPACE	9000.00	3250.00	terrestrial	autumn olive multiflora rose oriental bittersweet	mechanical handpulling/cutting herbicides revegetation
20-IPC	TOWN OF ELLINGTON	REMOVAL OF VARIABLE LEAF MILFOIL FROM CRYSTAL LAKE IN ELLINGTON, CT, BY SUCTION HARVESTING METHODS USING SCUBA DIVERS	50000.00	17000.00	aquatic	variable leaf milfoil	suction harvesting

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
21-IPC	TOWN OF WASHINGTON	ERADICATE JAPANESE KNOTWEED ALONG THE TOWN'S RIVER WALK IN PREPARATION FOR THE CREATION OF A MINI-ARBORITUM.	4125.00	1375.00	both	Japanese knotweed phragmites	mechanical handpulling/cutting herbicides revegetation
22-IPC	TOWN OF CHESIRE	BOULDER KNOLL PROPERTY- NON-NATIVE INVASIVE VEGETATION MANAGEMENT PLAN	37500.00	12500.00	both	autumn olive multiflora rose phragmites	cutting/herbicides (on stumps) dredging?
23-IPC	TOWN OF CHESIRE	TEN MILE LOWLANDS - NON- NATIVE INVASIVE VEGETATION MANAGEMENT PLAN	15000.00	5000.00	both	multiflora rose phragmites	physical removal, some cutting & herbicide app. To stumps
24-IPC	GOSHEN	ERADICATION OF EURASIAN MILFOIL AND POND WATER- STARWORT IN TYLER LAKE, GOSHEN, CT.	5000.00	2000.00	aquatic	eurasian milfoil pond water-starwort	"milfoil" weevil harvester

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
25-IPC	TOWN OF VERNON	REMOVAL OF VARIABLE MILFOIL FROM VALLEY FALLS POND AND WALKER RESERVOIR IN THE TOWN OF VERNON	7000.00	1750.00	aquatic	Variable leaf milfoil fanwort	herbicides possibly harvesting
27-IPC	TOWN OF DARIEN	HOLLY POND/OLSON WOODS INVASIVE PLANT REMEDIATION	8507.00	5500.00	both	Japanese knotweed Norway maple phragmites	herbicides cutting revegetation
29-IPC	TOWN OF ENFIELD	ERADICATION OF INVASIVE PLANTS IN FRESHWATER BROOK, ENFIELD, CT.	31012.00	10338.00	terrestrial	autumn olive oriental bittersweet multiflora rose Japanese knotweed reed canary grass	herbicides mechanical removal shading mowing replantings
30-IPC	CITY OF WATERBURY	FULTON PARK JAPANESE KNOTWEED CONTROL PROJECT	20000.00	8075.00	terrestrial	Japanese knotweed	herbicides mechanical removal shading
31-IPC	TOWN OF NEW FAIRFIELD	THE TOWN OF NEW FAIRFIELD TREATMENT WITH THE NATIVE WEEVIL ON CANDLEWOOD LAKE.	37500.00	12500.00	aquatic	Eurasian milfoil	weevil

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
32-IPC	TOWN OF GOSHE]	TOWN OF GOSHEN PIE HILL MARSH & KOBYLENSKI WILDLIFE AREA-PHRAGMITES CONTROL	14102.00	9972.00	aquatic	phragmites	herbicides mechanical (mowing)
33-IPC	EASTON	Eradication of invasive plant species at Toth Park Pond	75000.00	35600.00	aquatic	fanwort flowering rush	dredging
34-IPC	TOWN OF PLYMOUTH	ERADICATION OF VARIOUS INVASIVE TERRESTRIAL PLANT SPECIES FROM THE PARK SURROUNDING LAKE WINFIELD, HOLT STREET AND SEYMOUR	20000.00	2900.00	terrestrial	Japanese knotweed multiflora rose	mechanical herbicides
35-IPC	TOWN OF PLYMO	ERADICATION OF INVASIVE AQUATIC PLANT SPECIES FROM THE PARK SURROUNDING LAKE WINFIELD, HOLT STREET AND SEYMOUR ROAD, TERRYVILLE, CT.	25000.00	5000.00	aquatic	phragmites	excavation
37-IPC	TOWN OF CANTON	CANTON - REMOVAL OF ORIENTAL BITTERSWEET, JAPANESE BARBERRY, JAPANESE KNOTWEED & MULTIFLORA ROSE FROM 6 OPEN SPACE PARCELS.	22500.00	7500.00	terrestrial	Japanese knotweed multiflora rose Japanese knotweed oriental bittersweet	mechanical herbicides surveys

Update on the CT DEP
Grants to Municipalities Program

Number	Municipality	Title	Total Grant Funding	Total Matching Funds	type	target plant	methods
39-IPC	TOWN OF SIMSBURY	REMOVAL OF SEVEN (7) NON- NATIVE INVASIVE PLANT SPECIES FROM THE SIMSBURY FATRMS RECREATIONAL COMPLEX LOCATED AT 100 OLD FARMS ROAD, WEST SIMSBURY, CT.	49235.92	21541.00	terrestrial	Autumn olive Japanese barberry multiflora rose oriental bittersweet euonymus tartarian honeysuckle tree of heaven	mechanical/hand pruning herbicides propane torches
41-IPC	TOWN OF OXFORD	ERADICATION OF COMMON BARBERRY, ORIENTAL BITTERSWEET AND ROSA MULTI- FLORA FROM THE OXFORD KATHERINE MATTHIES WOODLAND PRESERVE.	43329.00	37840.00	terrestrial	Japanese barberry oriental bittersweet multiflora rose	mechanical/handpulling



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: February 12, 2009

Written testimony RE:

Raised Bill No. 790, "An Act Implementing the Recommendations of the Invasive Plant Council"

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. 790, "An Act Implementing the Recommendations of the Invasive Plant Council." 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. This group has been meeting since 2003 and has issued six annual reports on its activities, including recommendations that have arisen out of its deliberations. Much of the time spent by the Council has been devoted to discussing technical changes needed in the current laws and the need to secure financial support to fund a program to manage aquatic and terrestrial invasive plants and to educate the public. In the 2007 state budget, an allocation of \$500,000 for each of two years was provided to support these activities. The Council thanks Senator Andrew Roraback and Representative Clark Chapin for introducing bills and Representative Richard Roy and the members of the Committee for their support of the legislation. This year's bill, no. 790, is critical because it contains the legislative technical changes that the Council has been recommending since 2004.

Council members are eager to see these technical changes made to the legislation. The municipal prohibition on regulating the sale or purchase of invasive plants (section 3d) is very important because the authority for regulating invasive plants should remain with the state. Connecticut's ability to combat the invasive plant problem will be fractured if municipalities make their own regulations regarding problem plants.

The bill defines the roles of the two regulatory agencies involved (the Director of the Connecticut Agricultural Experiment Station, and the Commissioner of Agriculture), which will clarify procedures regarding inspection and enforcement. Further, it modifies the language to make legal the education- and research-related movement of invasive plants. This change is important for continued progress on the public awareness front, and to prevent restriction of research efforts at our Universities and Experiment Stations. The bill also proposes language that provides for legal transport and disposal of invasive plant materials resulting from control projects. This has been a pressing issue ever since the original legislation was passed.

The bill removes water lettuce from the list of banned invasives, which is appropriate because the plant's sensitivity to cold temperature makes it unable to become a problem in our ecosystems, and plantsmen in the state should not be prohibited from distributing it. Section 3b of the bill is an important addition because it specifies that reproductive parts of the regulated plants are included in the prohibitions. For example, because of this clarifying language, sales of bittersweet wreathes will become illegal when this bill is passed. Many environmentalists worry that discarded wreathes become a seed source that then leads to new invasions by the oriental bittersweet vine.

I am one of several University of Connecticut faculty members affiliated with the New England Invasive Plant Center, a multi-state, interdisciplinary initiative supported by the U.S. Department of Agriculture. The University of Connecticut serves as the lead institution for the Center, and together with colleagues at the University of Maine, our goals are to conduct research and public outreach to address problems caused by invasive plants that are economically and environmentally damaging to New England and the nation. The language changes in Bill 790 will make our jobs of outreach and research easier to accomplish.

I urge you to support Bill No. 790, "An Act Implementing the Recommendations of the Invasive Plant Council." The sooner we make the technical changes needed in the legislation, the sooner the people of Connecticut will recognize that they now have a comprehensive plan to address the issue of invasive plants in our state, and the considerable talents and resources that are available to combat this problem can be brought together in the most effective manner.

Supporting this bill will give more people the opportunity to learn about invasives, how they threaten our natural areas, and how they can be controlled with best management practices for environmental stewardship. Taking action now will help protect Connecticut's environment in the future.

I would like to thank the Environment Committee for your continued interest in invasive plants as one of many important environmental concerns, and for the opportunity to submit this testimony to you.



To: Appropriations Committee, Connecticut General Assembly

From: Mary E. Musgrave
Professor and Head, Department of Plant Science, University of Connecticut
Co-Director, New England Invasive Plant Center
and Chair, Connecticut Invasive Plants Council
Email mary.musgrave@uconn.edu; phone (860) 486-2925

Date: February 12, 2009

Written testimony RE:

Proposed DEP budget reduction to eliminate the Invasive Plants Program, \$500,000

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 Plant 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 6 years, providing guidance on the state's invasive plant issues. For several years our recommendations included funding a comprehensive invasive plant program in the state. Other states in New England have had such programs for a number of years. In the 2007 budget we were pleased to see \$500,000 for each of two years directed toward the DEP for this purpose. The yearly appropriation of \$500,000 funds the salary of the state's Invasive Plant Coordinator, educational activities such as production of poster exhibits of banned plants (posted where plants are sold), remediation of invasives such as the clean-up of the aquatic invasive Hydrilla from the Silvermine River, inspections for illegal sales of banned invasive plants in pet shops and nurseries, and a Grants to Municipalities Program to encourage management of invasive plants on public use lands. This grants program drew a lot of interest at first offering, indicating how widespread the concern about invasive plants is in the state. Despite a short time period for response, 41 applications were received from 38 municipalities across Connecticut. Funding is available to support only about 1/4 of the applications received.

The Council understands the gravity of the State's financial situation, and why this has led to the proposed elimination of the Invasive Plant Program funds to DEP. We recognize that the likelihood of reinstating the full funding for the program is low during this budget crisis.

Rather than complete elimination of the program, which would effectively force Connecticut back to "square one" with regard to managing invasive plants, we urge retention of a "keep-alive" annual budget of \$100,000, to preserve the inspection and regulatory structure that has been developed. 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.

In the absence of this core program funding, there would be no mechanism for enforcement of the plant bans that are in effect in 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. The Invasive Plant funding to DEP passes through the Department to support the work of inspectors of pet shops (by Department of Agriculture) and nurseries (by CT Agricultural Experiment Station). Removing these core functions would leave no mechanism for carrying out the regulatory statutes that the state has put in place for dealing with invasive plants.

Therefore the CT Invasive Plant 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 your continued interest in invasive plants as one of many important environmental concerns and for the opportunity to submit this testimony to you.

Ampelopsis brevipedunculata (Maxim.) Trautv.
porcelainberry/Amur peppervine

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon; 6-9 agreed upon at the 11/12/09 meeting

IPANE Distribution Data as of 10/27/09

Fairfield County, CT:	14
Total occurrences in CT:	28
MA:	29
RI:	6
NH:	1

Known in 5 CT counties. May occur in locations besides those that appear in the IPANE database.

Comments on IPANE/herbarium records from within CT include: “well-established”, “abundant”, “vines extensive; berries abundant”, “extensive vine covering shrubs”, and “not rare”.

Main Problems

“Because it is a vine, *Ampelopsis brevipedunculata* has the ability to grow up and smother native vegetation. The extra weight of this vine on the underlying plant makes it more susceptible to wind and ice damage. *Ampelopsis brevipedunculata* grows rapidly and is difficult to control. The fruit can float, so water can disperse these plants long distances. The seeds are known to have a high germination rate, aiding the establishment of this plant” (IPANE).

Dispersal

Bird dispersed. Fruits may also float. Seeds have high germination rate. Plants can grow up at 15 feet/year and seed may remain viable in soil for several years.

Notes

Denise Savageau, Conservation Director for the Town of Greenwich, reports that porcelainberry is a “huge problem”, not just in Greenwich but along the I-95 corridor. She also reports that she has seen

Species Information- *Ampelopsis brevipedunculata*

invasions as far north as Sharon, CT. IPANE shows 3 records from Sharon as early as 1979 with the comment “well-established”.

Logan Senack and others have also seen substantial populations of this species in Greenwich and Fairfield, and Donna Ellis reports that she has seen vines in Greenwich overtaking *Phragmites* and Oriental bittersweet.

This plant is listed in Massachusetts as “Likely Invasive”.

Literature

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.

IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: www.ipane.org

Robertson, D.J., M.C. Robertson, and T. Tague. 1994. Colonization dynamics of four exotic plants in a northern Piedmont natural area. *Bulletin of the Torrey Botanical Club* 121(2):107-118.

Swearingen, J. 2009. WeedUS Database of Plants Invading Natural Areas in the United States: Porcelainberry (*Ampelopsis brevipedunculata*). Online at: www.invasive.org/weedus/subject.html?sub=3007

Young, Jamie. 2009. Plant Conservation Alliance’s Alien Plant Working Group Least Wanted: Porcelainberry. Online at: www.nps.gov/plants/ALIEN/fact/ambr1.htm

Species Information- *Froelichia gracilis*

Froelichia gracilis (Hook.) Moq.
slender snake cotton

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant (Banned)

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon; 6-9 agreed upon at 11/12/09 meeting

IPANE Distribution Data as of 11/02/09

Total occurrences in CT:	32
MA:	25
RI:	1
NH:	4
VT:	4

Known in 7 CT counties. May occur in locations besides those that appear in the IPANE database.

Main Problems

“While this plant is not an immediate threat to most natural areas, it has exhibited the ability to move long distances and persist. It also has the potential of invading sandy coastal areas and pitch pine/scrub oak barrens.” (Directly from IPANE)

Dispersal

Spreads by seed: wind-dispersed and possibly along railroad tracks via train disturbance.

Notes

Herbarium specimen comments include: “numerous individuals”, “locally abundant”, “locally common”, “well established”, “huge population extending for a few miles north and south of exit”, and “profusely emerging from pavement cracks” (*not all comments necessarily from CT specimens; all are from New England specimens*)

Status unknown in MA.

Species Information- *Froelichia gracilis*

Literature:

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.
IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology,
University of Connecticut, Storrs, CT, USA. Online at: <http://www.ipane.org>

Polygonum cespitosum Blume
Oriental lady's thumb/smartweed

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant (Banned)

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

*Criteria 1-5 previously agreed upon; 6-9 agreed upon at 11/12/09 meeting

IPANE Distribution Data as of 11/02/09

Total occurrences in CT: 96
MA: 12
ME: 2
NH: 2

Known in all 8 CT counties. May occur in locations besides those that appear in the IPANE database.

Comments on IPANE/herbarium records from within CT include: "very abundant", "large colony" (several), "abundant", "well-established", and "numerous". 2 records in CT over 76% density in 20 m radius area, 100-999 plants each.

Main Problems

"*Polygonum caespitosum* is usually found in highly disturbed situations. However, it has been seen in large, monotypic stands and can tolerate extreme shade and pH. Thus, this plant has the potential to invade shaded natural areas and to outcompete other native species that thrive in moist, shaded habitats. It can be found on ridge tops and open woods, usually near trails" (IPANE).

Dispersal

Spread by seed- may have been spread by railroads.

Notes

Species Profile- *Polygonum cespitosum*

Based on IPANE field data, this species prefers moist soils in CT. In all the IPANE records there is only 1 plant recorded growing in Xeric (dry) soil in MA.

Literature:

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.

IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA. Online at: <http://www.ipane.org>

Muhlenbach, V. 1979. Contributions to the Synanthropic (Adventive) Flora of the Railroads in St. Louis, Missouri, U.S.A. *Annals of the Missouri Botanical Garden* 66(1): 1-108.

Sultan, S.E., A.M. Wilczek, S.D. Hahn and B.J. Brosi. 1998. Contrasting Ecological Breadth of Co-Occurring *Polygonum* species. *Journal of Ecology* 86:363-383.

Zika, P.F., R.J. Stern and H.E. Ahles. 1983. Contributions to the Flora of Lake Champlain Valley, New York and Vermont (in Torrey). *Bulletin of the Torrey Botanical Club* 110(3): 366-369.

Rubus phoenicolasius Maxim.
wineberry/wine raspberry

11/12/09 STATUS CHANGE: changed from Potentially Invasive Plant to Invasive Plant (Banned)

1. Non-indigenous to the state
2. Naturalized or has the potential to become naturalized or occur without aid and benefit of cultivation in an area where the plant is non-indigenous
3. Biological potential for rapid and widespread dispersion and establishment in state or region in state (under average conditions)
4. Biological potential for excessive dispersion over habitats (avg. conditions)
5. Biological potential for existing in high numbers outside of intensely managed habitats (avg. conditions)
6. Occurs widely in region of the state or habitat within the state CT
7. Numerous individuals within many populations
8. Able to outcompete other species in same natural plant community
9. Has potential for rapid growth, high seed production and dissemination and establishment in natural plant communities

Criteria 1-5 previously agreed upon; 6-9 agreed upon at the 11/12/09 meeting

IPANE Distribution Data as of 11/02/09:

Total occurrences in CT:	92
MA:	11
RI:	18
NH:	1

1 field record New Milford: 100-999 plants 51-75% cover

1 herbarium record “spreading from an old garden to fence rows” (1919), remote from habitations or cultivation (1907), “forming a large colony and well established” (1906), “Plentiful in many places in the town” (1950) (all from CT), several “escaped” from other places in New England

Main Problems:

“*Rubus phoenicolasius* can rapidly form dense monotypic thickets that crowd out native vegetation. Since the fruits are tasty, it is often not recognized as a problem. Copious fruit production and subsequent bird-dispersal contribute to its spread across the landscape” (IPANE).

Dispersal:

Produces high number of fruits. Bird-dispersed (small mammals?).

Notes:

This plant is listed in Massachusetts as “Likely Invasive”.

Virus indicator (and therefore host?) for raspberry yellow spot and wineberry latent virus.

Species Information- *Rubus phoenicolasius*

Literature:

Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.
IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology,
University of Connecticut, Storrs, CT, USA. Online at: www.ipane.org

Spencer, Neal. 2009. Plant Conservation Alliance's Alien Plant Working Group Least Wanted:
Wineberry. Online at: www.nps.gov/plants/alien/fact/ruph1.htm

2009 YEAR END REPORT

CT DEP Invasive Plant Program: 2009 Accomplishments

In 2003, the Connecticut General Assembly established the Invasive Plant Council (IPC) (CGS 22a-381) to develop strategies regarding public education, control methods, and prevention in order to address the adverse consequences of invasive plants. In 2007, the Connecticut General Assembly provided funding to establish an Invasive Plant Program, to be administered by the Connecticut Department of Environmental Protection (DEP). This report documents the DEP's initial efforts in developing such a program. The Invasive Plant Program is being coordinated and integrated with other DEP efforts to address threats from invasive species (e.g., Aquatic Nuisance Species Plan and Wildlife Habitat Improvement Projects).

Goal of the DEP Invasive Plant Program: To develop and implement an Invasive Plant Program that minimizes the impact of invasive plants to Connecticut's terrestrial and aquatic habitats and prevents new introductions. This goal will be achieved by developing a comprehensive program that addresses prevention, early detection and monitoring, rapid response, control, and education related to invasive plants.

A) Completed Tasks:

- **Invasive Plant Coordinator:** DEP was able to implement a one year Project Amendment to the existing Project Agreement with the University of CT Plant Science. This amendment allowed us to extend the Invasive Plant Coordinator contract until June 30, 2010. The coordinator reports jointly to the University and DEP.

CT Invasive Plant Coordinator, Logan Senack: Accomplishments

Assigned 96 plants to management classes

Senack worked with Donna Ellis (UConn) and Nancy Murray (DEP) with advice from Dr. Les Mehrhoff (IPANE/UConn) to separate Connecticut's 96 invasive species into 5 categories based on population size in CT, availability of control techniques, magnitude of impacts, and other factors. This categorization will allow DEP and other stakeholders to focus limited resources on species control activities that will have the greatest positive impact on Connecticut's landscape and ecosystems. (Attachment A-Assignment of Plants to Management Classes)

Developed draft experts databases

Senack developed a list of Taxonomic and Control Experts on invasive plants in Connecticut, which will be updated in June 2010. The list is composed of experts on CT flora who may be willing to assist with identification, rapid response, and field visits to populations of invasive plants in Connecticut.

Increased public awareness about mile-a-minute vine

Launched website and online reporting form

Senack worked with staff at DEP and UConn to develop a website about mile-a-minute vine, a species designated as a high priority by both DEP and UConn. The website includes general information about the species for the public, as well as an online reporting form that can be used to report a suspected occurrence of mile-a-minute vine in the state.

Issued press release about mile-a-minute vine invasion

Senack coordinated with DEP and UConn to issue a joint press release about mile-a-minute vine in CT and to ask the public to assist state staff in locating mile-a-minute vine. Along with other mile-a-minute outreach activities, the press release resulted in mile-a-minute vine coverage in seven newsletter, magazine, and other non-daily periodicals, at least 28 other newspaper articles, and three television news stories on three news networks.

Distribution of mile-a-minute vine identification materials

Senack worked with Ellis at UConn and with state and town staff, volunteers, and non-profit gardening organizations to distribute over 8,450 postcards, 430 flyers, and 250 posters about mile-a-minute to businesses, residents, and the general public at various events in Connecticut.

Collected additional information on locations and spread of mile-a-minute vine in CT

The increased attention on mile-a-minute vine has resulted in at least 195 reports of suspected mile-a-minute populations via the mile-a-minute website and phone number managed by Senack and Ellis at UConn. An additional 82 reports of suspected mile-a-minute vine populations were received by various other state programs and agencies, including the CT Agricultural Experiment Station and UConn Master Gardener's Program/Cooperative Extension, for a total 277 reports. Most of the reports are negative (i.e. other species confused with mile-a-minute), but approximately 14% were positive and some reports resulted in the discovery of mile-a-minute vine in previously unknown towns. This reporting initiative enabled the discovery of mile-a-minute vine in three new towns in the state. Senack also assisted CAES and UCONN with introduction of the mile-a-minute weevil that is used as a biological control.

Initiated research on invasive plant database to track distribution, management actions, and monitoring programs on Early Detection invasive plants

Senack is gathering information about various invasive plant database programs and has participated in conference calls about mapping programs, database programs, and other issues.

Provided administrative support to the Invasive Plant Council

Senack provided much needed administrative support to the Invasive Plant Council by preparing and posting meeting minutes since 2008 and assisting with IPC requests for information.

Initiated pilot project to develop a reporting protocol for invasive plants

Senack is developing a reporting protocol for invasive plant species. A pilot project using reporting of mile-a-minute vine was used to gauge public response and test the reporting process.

➤ **Funding for Inspections of nurseries and pet stores**

Transferred funds to the Connecticut Agricultural Experiment Station (CAES) that enabled CAES to inspect nurseries and garden centers for the sale of banned invasive plants. The Connecticut Agricultural Experiment Station conducted invasive plant inspections at 158 nurseries this past year. No invasive plants banned by Connecticut law were found.

Funds were also transferred to Department of Agriculture to inspect pet stores for the sale of invasive plants.

➤ **PRIORITY INVASIVE SPECIES CONTROL WORK**

Hydrilla (*Hydrilla verticillata*)

New location found- Southwest CT DEP-Inland Fisheries, while conducting a triploid grass carp evaluation, collected an aquatic plant sample that was positively identified as Hydrilla. DEP did a whole lake survey to determine the species extent. An aquatic plant control contractor was immediately hired by the landowners to conduct diver assisted hand pulling to remove the plants.

Fairfield County-During the second year of the Silvermine River Hydrilla Cooperative Agreement with the University of Connecticut, herbicide applications were conducted at three waterbodies. Data on biomass was collected from the three treatment areas and three control areas. Data will be analyzed over the next few months. Additional data collection will be done in 2010.

In September 2009, a volunteer hand pulling event was also conducted along a section of the Silvermine by UCONN students and professors. A member of DEP staff helped plan this effort and assisted with implementation. A total of 310 pounds of Hydrilla was collected and then incinerated. The goal continues to be eradication of hydrilla from the Silvermine River.

Waterchestnut (*Trapa natans*)

Connecticut River-CT-DEP (main stem river and coves from Hartford downstream) and USFWS (“hot” spots in the Hartford area) completed their

annual survey of the CT River in Connecticut for water chestnut. This year, both DEP and USFWS staff found significantly fewer plants than in previous years. Surveying/harvesting activities were hampered by higher than usual flows for much of the summer.

Mudge Pond, Sharon-DEP conducted the third year of hand pulling and has noted that existing subpopulations of waterchestnut have been reduced. These efforts will continue.

Yellow floating heart (*Nymphoides peltata*)

New location found- This site was reported from a pond in Pachaug State Forest. CT DEP staff hand pulled the relatively small population and will plan to conduct control work next year. The root system extended into the pond substrate and had rootlets growing at the submersed internodes; it is no wonder this plant grows so well.

Eastern CT Private Pond-The second year of chemical control was once again conducted in August with the assistance of the DEP Wildlife Division-Wetlands Habitat and Mosquito Management Control Program (WHAMM).

Phragmites /Common Reed (*Phragmites australis*)

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. They are using two different herbicides: glyphosate and imazapyr. They have conducted control work at the following sites during 2009.

Natural Resources Conservation Service (NRCS) Wildlife Habitat Incentive Program Funded Projects for Phragmites control

Verkades in Waterford – 10 acres

Assekunk Swamp WMA in North Stonington – 5 acres

Barn Island WMA in Stonington – 21 acres

John Minetto State Park in Torrington – 5 acres

White Memorial in Litchfield – 30 acres

Pandolpho site in Ashford – 10 acres

Harkness State Park Dune Restoration – invasive knotweed control in Waterford – 3 acres

NRCS Landowner Incentive Program Funded Projects for Phragmites control

Long Wharf NHLT in New Haven – 2 acres

Mill Meadows in Old Saybrook – 5 acres

Bermuda Road Aspetuck Land Trust in Westport – 1 acre

Sherwood Mill Pond in Westport – 4 acres

Lord's Cove, TNC, in Lyme – 100 acres

Lieutenant River and Calves Island, TNC in Old Lyme – 5 acres

Flanders NCLT in Woodbury – 2 acres
Joshua Creek LCT, Lyme – 2 acres
Seaside Ave in Guilford – 5 acres

NRCS 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 State Park in Milford
Sherwood Island State Park in Westport

Department of Transportation Funded for invasive control

Groton Airport, knotweed and Phragmites – 6 acres
West River in West Haven, Phragmites – 2 acres

Other funded Phragmites control

Livingston Ripley Waterfowl Institute in Litchfield - .5 acre
Roy Swamp Wildlife Management Area in Sharon – 3 acres
Davis Pond in East Lyme – 2 acres
Mile Creek in Old Lyme – 5 acres

B) Tasks with Ongoing Elements:

- **“Grants to Municipalities for Control of Invasive Plants” Update:** DEP received 41 proposals from municipalities in response to the Request for Proposals (RFP) to distribute \$175,000 to municipalities for invasive plant control projects on publicly accessible lands and waters that was announced in October, 2008. Project proposals were reviewed and ranked by the DEP Invasive Plant Working Group. Each member ranked the proposals and met to discuss and prioritize the projects. The Group agreed on the final funding recommendations. The CT Invasive Plant Council approved the list of recommended projects and DEP drafted Personal Service Agreements to transfer the funds. Unfortunately, the program was cancelled on March 5, 2009 after it was determined that funds for the program would not be available due to CT’s declining budget situation.
- **Supplemental Environmental Project:** Department of Environmental Protection (DEP) will be funding four projects designed to control several highly invasive non-native plants. The \$115,000 in funding for these projects comes from Supplemental Environmental Project (“SEP”) payments made to DEP as part of the resolution of enforcement actions. These funds are used as support for environmentally beneficial projects. Two projects in the towns of New Milford

and Newtown are targeting mile-a-minute vine (*Persicaria perfoliata*). The project in Litchfield and Morris will target an infestation of fanwort (*Cabomba caroliniana*) in the upper Bantam River and its outlet into Bantam Lake. These projects had been the highest ranked project proposals from the currently unfunded invasive plants grants program. They were selected from more than forty project proposals that had been submitted to a program that had been known as “Grants to Municipalities for Control of Invasive Plants.” The funding will also support ongoing efforts to eradicate water chestnut (*Trapa natans*) from a flood control pond in the City of Hartford that flows into the Connecticut River.

C) Tasks in Progress:

➤ **Federal Aquatic Nuisance Species (ANS) Funding:**

Statewide ANS Coordinator

Last year, DEP drafted a cooperative agreement with the University of CT Institute of Water Resources using FY08 ANS funds in conjunction with state matching funds to support a Statewide ANS Coordinator. The DEP matching funds were not available when the state budget situation occurred and we were unable to proceed. We plan to develop a new cooperative agreement with the University of CT Institute of Water Resources to hire a part-time ANS Coordinator. The person in this position will be addressing selected tasks from the federally approved *Connecticut Aquatic Nuisance Species Management Plan* pertaining to the prevention, early detection, monitoring, rapid response, and education about aquatic invasive species (including invasive plants). The following tasks from the CT ANS Plan shall be initiated: Hire part-time ANS Coordinator, including establishing Coordinating Committee; develop & review ANS listing protocols, species and vector lists; coordinate within NE region; conduct information needs assessment; minimize industry, recreation and education and research introductions; develop an CT ANS website

FY09 ANS Funding

DEP submitted the funding request for FY09 ANS funds in September 2009 in the amount of \$34,000 (total amount available to each state). We are awaiting the final award letter. The following tasks from the CT ANS Plan shall be initiated: coordinate within NE region; develop early detection, monitoring and assessment information management system; develop control guidelines; develop rapid response protocols; distribute education materials; issue press releases, and update CT ANS website.

D) Future Tasks and Challenges:

Control of Invasive Plants Requires a Long-Term Commitment:

Due to severe budget shortfalls, the Connecticut State Legislature did not allocate funding to maintain the DEP Invasive Plant Program. Without dedicated funding,

DEP will face even greater challenges in efforts to protect CT's natural resources from degradation from invasive species.

Last year's program goals remain critically important to operating a CT Invasive Plant program.

- **Prevention:** The most cost effective invasive plant program is one that stops new invasive plants before they enter the state. We need to identify invasive plant vectors (i.e., moving soil or equipment), research existing prevention methods, and develop new methods to prevent further introductions or dispersal. Our objective will be to develop Best Management Practices for industry and the general public (see education below).

- **Early Detection and Monitoring:** Early detection is important because plant populations are often small enough to be eradicated. Coordination with in-state and regional partners facilitates finding new invaders early. CT needs to develop a comprehensive database to track the locations of invasive plant locations, site ownership, control actions, costs, and control results.

- **Rapid Response and Control:** Rapid Response refers to actions to eradicate, contain or control invasive species while the populations are small. CT needs to develop a generic rapid response plan that can be quickly modified to address specific invasive plants. Legal constraints need to be identified and addressed. Plant experts need to be available or on-call to conduct control actions and to confirm species identification.

- **Education and Awareness:** Educational efforts need to be expanded to include Best Management Practices for the nursery & landscaping industry, pet trade, municipal landfills and composting sites, and for the general public. A comprehensive CT based Invasive Plant website needs to be developed.

Assignments of Plants to Management Classes

The management classes used in this document are based on and compatible with the classes defined in the Connecticut Aquatic Nuisance Species Management Plan (12/1/06). The definitions of these management classes have been adapted below for use with both the terrestrial and aquatic species on Connecticut's Invasive Plant List.

This list is to assist DEP in prioritizing control actions for invasive plants. Manageable, defined categories will allow DEP to focus limited funding and personnel on control activities that will have the most positive impact on Connecticut's economy, landscape, and ecosystems. This list will be revised by DEP with advice from the CT Invasive Plants Council.

Class 1: Limited or Incipient Populations

Includes species that have limited or incipient populations within Connecticut.

NOTE: *Additionally, individual populations of Class 2 species found in new locations should be considered Class 1.*

Primary management actions include:

- ◆ Rapid response efforts for the eradication of new populations
- ◆ Prevention of further introductions/establishment of new populations
- ◆ Prevention of dispersal into new areas
- ◆ Issuance of alerts and educational materials to facilitate detection of new infestations
- ◆ Systematic monitoring of natural waterways, highways, and other areas to detect additional populations
- ◆ Interruption of possible import pathways to Connecticut
- ◆ Interruption of possible export pathways from Connecticut
- ◆ Coordination with neighboring states regarding spread vectors

Scientific Name

Arthraxon hispidus (Thunb.) Makino
Egeria densa Planch.
Heracleum mantegazzianum Sommier & Levier
Hydrilla verticillata (L.f.) Royle
Myriophyllum aquaticum (Vell.) Verdc.
Nymphoides peltata (S.G. Gmel.) Kuntze
Pueraria montana (Lour.) Merr.

Common Name

Hairy jointgrass
Brazilian water-weed
Giant hogweed
Hydrilla
Parrotfeather
Yellow floating heart
Kudzu

Class 2: Established Species, Significant Impact, Some Practical Control Techniques Available

Includes species present and established in Connecticut with known impacts (or potential for impact) that may be mitigated or controlled with appropriate management techniques.

Primary management actions include:

- ◆ Prevention of further introductions and dispersal to new waters/land areas, including interrupting possible import and export pathways to/from Connecticut
- ◆ Control of population range
- ◆ Mitigation of impacts (including impacts on species that are rare, threatened or endangered)
- ◆ Resource managers, researchers, and industry representatives working together to find long-term solutions for those species considered to be important for recreation or commercial purposes

Scientific Name

Ampelopsis brevipedunculata (Maxim.) Trautv.

Bromus tectorum L.

Cabomba caroliniana A. Gray

Cardamine impatiens L.

Cynanchum louiseae Kartesz & Gandhi

Cynanchum rossicum (Kleo.) Borhidi

Euphorbia cyparissias L.

Euphorbia esula L.

Iris pseudacorus L.

Lepidium latifolium L.

Ligustrum obtusifolium Sieb. & Zucc.

Lythrum salicaria L.

Myriophyllum heterophyllum Michx.

Myriophyllum spicatum L.

Najas minor All.

Polygonum perfoliatum L.

Polygonum sachalinense F. Schmidt ex Maxim.

Potamogeton crispus L.

Ranunculus ficaria L.

Trapa natans L.

Common Name

Porcelainberry

Drooping brome-grass

Fanwort

Narrowleaf bittercress

Black swallow-wort

Pale swallow-wort

Cypress spurge

Leafy spurge

Yellow iris

Perennial pepperweed

Border privet

Purple loosestrife

Variable-leaf watermilfoil

Eurasian watermilfoil

Brittle water-nymph

Mile-a-minute vine

Giant knotweed

Crispy-leaved pondweed

Fig buttercup

Water chestnut

Class 3: Established species, Significant Impact, No Known Effective or Practical Control Techniques Available

Includes species established in Connecticut, with known impacts (or potential for impact), but with no known available effective or appropriately effective management techniques.

NOTE: This category also includes some species that are considered to be so widespread that known control techniques are not feasible.

Primary management actions include:

- ◆ Prevention of further introductions, including interruption possible import/export pathways from Connecticut
- ◆ Mitigation of impacts (including impacts on species that are rare, threatened or endangered)
- ◆ Further evaluation and research of potential control methods

Scientific Name

Acer platanoides L.
Ailanthus altissima (Mill.) Swingle
Alliaria petiolata (M. Bieb.) Cavara & Grande
Berberis thunbergii DC.
Berberis vulgaris L.
Celastrus orbiculatus Thunb.
Centaurea biebersteinii DC
Elaeagnus umbellata Thunb.
Euonymus alatus (Thunb.) Sieb.
Frangula alnus Mill.
Lonicera japonica Thunb.
Lonicera maackii (Rupr.) Maxim.
Lonicera morrowii A. Gray
Lonicera X bella Zabel
Lysimachia nummularia L.
Microstegium vimineum (Trin.) A. Camus
Phalaris arundinacea L.
Phragmites australis (Cav.) Trin.
Polygonum caespitosum Blume
Polygonum cuspidatum Siebold & Zucc.
Rhamnus cathartica L.
Robinia pseudo-acacia L.
Rosa multiflora Thunb.
Rubus phoenicolasius Maxim.
Tussilago farfara L.

Common Name

Norway maple
 Tree of heaven

 Garlic mustard
 Japanese barberry
 Common barberry
 Oriental bittersweet
 Spotted knapweed
 Autumn Olive
 Winged euonymus
 Glossy buckthorn
 Japanese honeysuckle
 Amur honeysuckle
 Morrow's honeysuckle
 Bell's honeysuckle
 Moneywort
 Japanese stilt grass
 Reed canary grass
 Common reed
 Bristled knotweed
 Japanese knotweed
 Common buckthorn
 Black locust
 Multiflora rose
 Wineberry
 Coltsfoot

*Glossostigma cleistanthus**

Mud Mat*

* Not on CT Invasives or Banned Lists—

(Listed in ANS Plan)

Class 4: Established Species, Impacts Unclear

Includes species that are established in the waters/land areas of Connecticut and may have the potential to cause impacts, but current knowledge is insufficient to determine if control actions are warranted.

Primary management actions include:

- ◆ Prevention of further introductions, including interruption of possible import/export pathways from Connecticut
- ◆ Further research to evaluate invasive potential and ecosystem effects
- ◆ Continued monitoring of existing populations to determine rate of spread

Scientific Name

Acer ginnala L.
Acer pseudoplatanus L.
Aegopodium podagraria L.
Amorpha fruticosa L.
Butomus umbellatus L.
Callitriche stagnalis Scop.
Cirsium arvense (L.) Scop.
Datura stramonium L.
Elaeagnus angustifolia L.
Elsholtzia ciliata (Thunb.) Hylander
Froelichia gracilis (Hook.) Moq.
Glechoma hederacea L.
Hesperis matronalis L.
Humulus japonicus Sieb. & Zucc.
Impatiens glandulifera Royle
Kochia scoparia (L.) Schrader
Ligustrum ovalifolium Hassk.
Ligustrum vulgare L.
Lonicera tatarica L.
Lonicera xylosteum L.
Lychnis flos-cuculi L.
Lysimachia vulgaris L.
Marsilea quadrifolia L.
Miscanthus sinensis Andersson
Myosotis scorpioides L.
Nelumbo lutea (Willd.) Pers.
Onopordum acanthium L.
Ornithogalum umbellatum L.
Paulownia tomentosa
(Thunb.) Siebold & Zucc. ex. Steud.

Common Name

Amur maple
Sycamore maple
Goutweed
False indigo
Flowering rush
Pond water-starwort
Canada thistle
Jimsonweed
Russian olive
Crested late-summer mint
Slender snake cotton
Ground ivy
Dame's rocket
Japanese hops
Ornamental jewelweed
Common kochia
California privet
European privet
Tatarian honeysuckle
Dwarf honeysuckle
Ragged robin
Garden loosestrife
European waterclover
Eulalia
Forget-me-not
American water lotus
Scotch thistle
Star-of-Bethlehem
Princess tree

<i>Poa compressa</i> L.	Canada bluegrass
<i>Populus alba</i> L.	White poplar
<i>Rorippa microphylla</i> (Boenn. ex Reichenb.) Hyl. ex A. & D. Löve	Onerow yellowcress
<i>Rorippa nasturtium-aquaticum</i> (L.) Hayek	Watercress
<i>Rosa rugosa</i> Thunb.	Rugosa rose
<i>Rumex acetosella</i> L.	Sheep sorrel
<i>Silphium perfoliatum</i> L.	Cup plant
<i>Solanum dulcamara</i> L.	Bittersweet nightshade
<i>Valeriana officinalis</i> L.	Garden heliotrope

Class 5: Potential Invaders, Impacts Expected to be Severe

Includes species not yet present in CT having high likelihood of introduction and if introduced, expected to have significant biological and/or socio-economic impact.

Primary management actions include:

- ◆ Prevention of introduction to the State of Connecticut
- ◆ Coordination with neighboring states if species occurs in those states

Scientific Name

Carex kobomugi Owhi
Eichhornia crassipes (Mart.) Solms
Glyceria maxima (Hartman) Holmberg
Pistia stratiotes L.
Salvinia molesta Mitchell complex
Senecio jacobaea L.

Common Name

Japanese sedge
Common water-hyacinth
Reed mannagrass
Water lettuce
Giant salvinia
Tansy ragwort