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 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 1year 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 deeded.

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-aminute 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. \boxtimes Non-indigenous to the state
- 2. X 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. \boxtimes Occurs widely in region of the state or habitat within the state CT
- 7. \square Numerous individuals within many populations
- 8. \boxtimes 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).

<u>Dispersal</u>

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.

<u>Notes</u>

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".

<u>Literature</u>

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

Bromus tectorum (L.)

cheatgrass/drooping brome-grass

Current Status: Listed as Potentially Invasive, Banned

No status change following the 11/12/09 meeting

- 1. \boxtimes Non-indigenous to the state
- 2. X 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 occurre	ences in C	Г:	58	
MA:			20	
RI:			4	
VT:			2	
77 . 11		. •		

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).

<u>Notes</u>

Not evaluated in MA.

Literature

Hulbert, L. 1955. Ecological studies of *Bromus tectorum* and other annual bromegrasses. 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. \square Non-indigenous to the state
- 2. X 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. \boxtimes Occurs widely in region of the state or habitat within the state CT
- 7. X Numerous individuals within many populations
- 8. \boxtimes 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

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)

<u>Dispersal</u>

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

<u>Notes</u>

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.

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. \square Non-indigenous to the state
- 2. X 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. \boxtimes Occurs widely in region of the state or habitat within the state CT
- 7. X Numerous individuals within many populations
- 8. \boxtimes 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.

<u>Notes</u>

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-Occuring *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 Torreya). 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. \boxtimes Non-indigenous to the state
- 2. X 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. \boxtimes Occurs widely in region of the state or habitat within the state CT
- 7. X Numerous individuals within many populations
- 8. \boxtimes 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.

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. \square Non-indigenous to the state
- 2. X 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.

<u>Notes</u>

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

Examined but <u>not</u> listed in MA.

<u>Literature</u>

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. \boxtimes Non-indigenous to the state
- 2. X 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.

<u>Notes</u>

Listed as "Likely Invasive" in MA.

<u>Literature</u>

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

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. \square Non-indigenous to the state
- 2. X 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.

<u>Notes</u>

Examined but <u>not</u> 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. X 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. \boxtimes Occurs widely in region of the state or habitat within the state CT
- 7. X Numerous individuals within many populations
- 8. \boxtimes 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).

<u>Dispersal</u>

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.

<u>Notes</u>

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 collsfoot

- 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".

<u>Literature</u>

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