

AGENDA
Inland Wetland Agency
REGULAR MEETING
Monday, November 4, 2013
Council Chambers, Audrey Beck Building

Call to Order: 7:00 PM

Review of Minutes of Previous Meetings and Action Thereon:
10.07.2013 - Regular Meeting

Communications:
Conservation Commission: No referrals
GM Monthly Business memorandum

Public Hearings:
None

Old Business:
None

New Business:
W1524 - St. Jean - 43 Hickory La - Solar Panels

Request for Exemption:
W1525 - Town of Mansfield - Dunham Town Forest - Pedestrian Bridge

Reports of Officers and Committees:

Other Communications and Bills:
Summer 2013 "The Habitat"
Sept/Oct 2013 CT Wildlife
Notification of Timber Harvest

Adjournment:

DRAFT MINUTES
MANSFIELD INLAND WETLANDS AGENCY
Regular Meeting
Monday, October 7, 2013
Council Chambers, Audrey P. Beck Municipal Building

Members present: Chairman J. Goodwin, R. Hall, K. Holt, G. Lewis P. Plante, B. Pociask,
K. Rawn, B. Ryan
Members absent: B. Chandy
Alternates present: S. Westa
Members absent: A. Marcellino, V. Ward
Staff present: Grant Meitzler, Wetlands Agent

Chairman Goodwin called the meeting to order at 7:00 p.m. Westa was appointed to act in Chandy's absence.

Minutes:

09-03-13 - Regular Meeting- Hall MOVED, Plante seconded, to approve the 09-03-13 minutes as written. MOTION PASSED with all in favor except Lewis who disqualified himself.

09-11-13- Field Trip- Ryan MOVED, Pociask seconded, to approve the 09-11-13 field trip minutes as corrected. MOTION PASSED with Goodwin, Pociask, and Ryan in favor and all others disqualified.

Communications:

The Draft Conservation Commission Minutes and the Wetlands Agent's Monthly Business report were noted.

Old Business:

W1522 – Galey, 85 Coventry Road, Fire Pond and Dry Hydrant

Holt MOVED, Ryan seconded, to approve the application for wetlands file W1522, submitted by James Galey, for excavation of a 4,850 square foot fire pond, on property located at 85 Coventry Road, as depicted on a plan dated 7/15/13, and as described in other application materials.

This action is based on a finding of no significant impact, and is conditioned on the following provisions being met:

1. All erosion and sediment controls as described in the application shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized.
2. Excavated material from the pond location is to be removed from the site.

This approval is valid for a period of five years (until October 7, 2018), unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins, and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment. MOTION PASSED UNANIMOUSLY.

W1523 – Hussey, 500 Mansfield Avenue, Caretaker Dwelling

Holt MOVED, Ryan seconded, to approve the application for wetlands file W1523, submitted by Farrah Hussey, for a caretaker's house on property located at 500 Mansfield Avenue, on property owned by Bruce and Franca Hussey, as depicted on a plan dated 8/8/13, and as described in other application materials.

This action is based on a finding of no significant impact, and is conditioned on the following provisions being met:

1. All erosion and sediment controls as described in the application shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized. Extra care shall be taken for maintaining erosion controls, as expressed in a 9/18/13 memo from the Conservation Commission.

2. The footing drain pipe shall be cut to end first in a stone lined buried pit, then the pipe continues to end at daylight as depicted. This is to slow down the water-flow before it reaches the end, which is depicted as three feet from the edge of the wetlands.
3. The house and septic system are limited to 3 bedrooms. If the house is enlarged and the number of bedrooms increases, the applicant shall return to the Inland Wetlands Agency for further approval.

This approval is valid for a period of five years (until October 7, 2018), unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins, and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment. **MOTION PASSED UNANIMOUSLY.**

Pending:

W1502 - Wetlands Violation Ordinance

Item was tabled– no new information.

New Business:

Modification Request:

W1521 – Newcity – Monticello La/Davis Rd

Holt MOVED, Hall seconded, to receive the application submitted by James Newcity (IWA File 1521) to the Wetlands and Watercourses Regulations of the Town of Mansfield for a modification to the July 1, 2013 wetlands approval for house additions, located at the intersection of Monticello Lane and Davis Road, on property owned by the applicant, as shown on a map dated April 25, 2013, revised through September 26, 2013, and as described in other application submissions, and to refer said application to the staff and Conservation Commission for review and comment. **MOTION FAILED** with Holt, Ryan Pociask and Plante in favor and Rawn, Lewis, Goodwin, Hall and Westa opposed.

Rawn MOVED, Westa seconded, to approve the application for a modification to the July 1, 2013 wetlands approval File W1521, granted to James Newcity, for house additions to the previously approved plan and associated improvements to be located on a building lot on the southeast corner of the intersection of Monticello Lane and Davis Road, proposed work for which is depicted on a plan dated 4-25-2013 and bearing latest revision date 9/26/2013.

This action is based on a finding of no significant impact, and is conditioned on the following provisions being met:

1. All erosion and sediment controls as described in the application shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized.
2. All conditions of the original approval are to remain in effect.

This modification is an amendment to the original approval and is made a part thereof, and is to be valid for a period of five years (until October 7, 2018), unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins, and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment. **MOTION PASSED** with all in favor except Holt, Plante and Pociask who were opposed.

Other Communications and Bills: Noted.

Adjournment:

The Chairman declared the meeting adjourned at 7:20 p.m.

Respectfully submitted,
Katherine Holt, Secretary

Memorandum:

October 10, 2013

To: Inland Wetland Agency
From: Grant Meitzler, Inland Wetland Agent
Re: Monthly Business

W1419 - Chernushek - hearing on Order

- 3.10.09: The hearing on the Order remains open and should continue until the permit application under consideration is acted upon.
(The Order was dropped on approval of the application required in the Order.)
- 4.30.09: Former rye grass seeding is beginning to show green. I spoke with Mr. Chernushek this afternoon who indicated health problems that delayed his starting but indicated he will be working this weekend. I will update on this Monday evening.
- 5.26.09: A light cover of grass growth has come in. Mr. Chernushek indicates health problems and two related deaths have delayed his start of work since the permit approval was granted. It appears that some light work has started. He has further indicated that he will start a vacation on June 22, 2009 to finish the work.
- 6.13.09: Work is underway.
- 6.21.09: Bulldozer work has been completed - finish work remains. The additional silt fencing has been placed along the northerly wetlands crossing, and the additional pipe under the southerly crossing has been installed. Remaining work includes finish grading along edges, spreading stockpiled topsoil, and establishing grass growth.
- 7.01.09: I spoke with Mr. Chernushek who indicated he expects work to be completed by September 1, 2009. (Site photo attached).
- 9.03.09: Mr. Chernushek has been working on levelling and grading. The formerly seeded areas have become fairly thick growth surrounding the central wet areas. He has further indicated that with the combination of weather and the slower moving of earth with the payloader compared to the earlier rented bulldozer has led him to contact contractors for earth moving estimates which have not yet been received. The site is not yet finished but has remained quite stable.
- 9.12.09: I met with Mr. Chernushek today and discussed again what his plans are for stabilizing this work site.
- 10.01.09: Mr. Chernushek indicated he has not heard back from the contractor he had spoken with about removing material, and is in progress of contacting others. In discussion is removal of material from the site either within the 100 cubic yard limit or obtaining a permit for such removal.
- 10.28.09: Mr. Chernushek has indicated he has made arrangements with DeSiato Sand & Gravel to remove 750 cubic yards of material. Staff is in the process of clarifying permit requirements.
- W1445 - Chernushek - application for gravel removal from site**
- 11.30.09: Packet of information representing submissions by Mr. Chernushek, Mr. DeSiato and myself is in this agenda packet as Mr. Chernushek's request for modification.
- 12.29.09: Preparation of required information for PZC special permit application is in progress. Tabling any action until the February 1, 2010 meeting is recommended.
- 1.12.10: 65 day extension of time received.
- 2.18.10: No new information has been received.

- 2.25.10: This application has been **withdrawn**.
- 6.30.10: As viewed from the adjacent property, the upstream and downstream areas have grown to a decent protected surface. I did not see indication of sediment movement.
- 10.26.10: A sale of the East portion of the Chernushek property has been in negotiation.
- 12.27.10: The property exchange has been completed. The owner is now the neighboring property owner Bernie Brodin. He has indicated his intention to stabilize the area as weather permits.
- 4.25.11: Mr. Brodin indicates he is starting with grading and spreading hay and seed to stabilize disturbed areas.

Mansfield Auto Parts - Route 32

- 11.01.12: Inspection - no vehicles are within 25' of wetlands.
- 11.20.12: Inspection - no vehicles are within 25' of wetlands.
- 12.13.12: Inspection - no vehicles are within 25' of wetlands.
- 1.14.13: Inspection - no vehicles are within 25' of wetlands.
- 2.25.13: Inspection - car storage areas are snowed in, not accessible.
- 3.12.13: Inspection - no vehicles are within 25' of wetlands.
- 4.25.13: Inspection - no vehicles are within 25' of wetlands.
- 5.17.13: Inspection - no vehicles are within 25' of wetlands.
- 6.06.13: Inspection - no vehicles are within 25' of wetlands.
- 7.10.13: Inspection - no vehicles are within 25' of wetlands.
- 7.22.13: Inspection - no vehicles are within 25' of wetlands.
- 8.13.13: Inspection - no vehicles are within 25' of wetlands.
- 9.20.13: Inspection - no vehicles are within 25' of wetlands.
- 10-10-13: Inspection - no vehicles are within 25' of wetlands.

Memorandum:

October 30, 2013

To: Inland Wetland Agency

From: Grant Meitzler, Inland Wetland Agent

Re: New Business for November 4, 2013 meeting

New Applications:

W1524 - St. Jean - 43 Hickory Lane - Solar Panels in buffer

	yes	no
	-----	-----
fee paid	x	
notice to neighbors	x	
map dated	Oct. 2, 2013	

This proposal has placed solar panels very close to wetlands area Mapped on this parcel at the time of earlier approvals.

Receipt and referral to the Conservation Commission for their review is appropriate.

Request for Exemption:

W1525 - Town of Mansfield - Dunham Town Forest = trail footbridge

	yes	no
	-----	-----
fee paid	x	
notice to neighbors	n.a.	
map dated	Oct. 17, 2013	

This application for a request for exemption asks permission for a volunteer Boy Scout project to install a trail footbridge at a brook location in the Dunham Town Forest Preserve.

There have been ample precedents for this exemption and specific language in the regulations provides for this exemption in Section 4.1 (b),B.

Specific detail has been provided for the intended foot bridge and photographs have been submitted with the application showing the are where the bridge will be placed.

PAGE
BREAK

RECEIPT OF APPLICATION FOR A WETLAND PERMIT:

_____, moved and _____ seconds to receive the application

submitted by C-Tech Solar (File #1524)

under the Wetlands and Watercourses Regulations of the Town of Mansfield

for the installation of 3 solar pole mounts

on property located at 43 Hickory Lane

owned by Michael St. Jean

as shown on a map with a date of 8/19/13 with a revised date of 10/2/13

and as described in application submissions, and to refer said application to staff and Conservation Committee, for review and comments.

PAGE
BREAK

APPLICATION FOR PERMIT
MANSFIELD INLAND WETLANDS AGENCY
4 SOUTH EAGLEVILLE ROAD, STORRS, CT 06268
TEL: 860-429-3334 OR 860-429-3330
FAX: 860-429-6863

FOR OFFICE USE ONLY
File # W1524
Fee Paid \$185-
Date Received 10-17-13

Applicants are referred to the Mansfield Inland Wetlands and Watercourses Regulations for complete requirements, and are obligated to follow them. For assistance, please contact Grant Meltzer, Inland Wetlands Agent at the telephone numbers above.

Please print or type or use similar format for computer, attach additional pages as necessary.

Part A - Applicant

Name C-Tec Solar

Mailing Address 542 Hopmeadow St. Apt B 130

Simsbury, CT Zip 06070

Telephone-Home _____ Telephone-Business 860-217-0885

Title and Brief Description of Project
Installing (3) new pole mounts for solar

Location of Project 43 Hickory Lane

Intended Start Date _____

Part B - Property Owner (if applicant is the owner, just write "same")

Name Michael St. Jean

Mailing Address 43 Hickory Lane

Mansfield, CT Zip 06250

Telephone-Home 860 870-0503 Telephone-Business _____

Owner's written consent to the filing of this application, if owner is not the applicant:

Signature [Signature] date 10/2/13

Applicant's interest in the land: (if other than owner) _____

Part C - Project Description (attach extra pages, if necessary)

1) Describe in detail the proposed activity here or on an attached page. (See guidelines at end of application – page 6.)

Please include a description of all activity or construction or disturbance:

- a) in the wetland/watercourse
- b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

See Attached letter re Description.

2) Describe the amount or area of disturbance (in square feet or cubic yards or acres):

- a) in the wetland/watercourse
- b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

(A & B) Approximately 29 Square feet

3) Describe the type of materials you are using for the project: metal poles, excavator,
Cement if possibly gravel.

- a) include **type** of material used as fill or to be excavated #60 cement and possible gravel
- b) include **volume** of material to be filled or excavated Approximately 29 Square feet

4) Describe measures to be taken to minimize or avoid any adverse impacts on the wetlands and regulated areas (silt fence, staked hay bales or other Erosion and Sedimentation control measures).

to minimize any impacts on the wetlands area we will install silt fences around the area.

Part D - Site Description

Describe the general character of the land. (Hilly? Flat? Wooded? Well drained? etc.)

well drained & flat

Part E - Alternatives

Have you considered any alternatives to your proposal that would meet your needs and might have less impact on the wetland/watercourse? Please list these alternatives.

Yes, location of all (3) arrays are considered to be the best location for solar to mitigate stroke.

Part F - Map/Site Plan (all applications)

1) Attach to the application a map or site plan showing **existing conditions** and the **proposed project** in relation to wetland/ watercourses. Scale of map or site plan should be 1" = 40'; if this is not possible, please indicate the scale that you are using. A sketch map may be sufficient for small, minor projects. (See guidelines at end of application – page 6.)

2) Applicant's map date and date of last revision 8.19.13 Revised 10.02.13

3) Zone Classification _____

4) Is your property in a flood zone? Yes No Don't Know

Part G - Major Applications Requiring Full Review and a Public Hearing

See Section 6 of the Mansfield Regulations for additional requirements.

Part H - Notice to Abutting Property Owners

1) List the names and addresses of abutting property owners

Name	Address
Paul & Susan Tolia	37 Hickory Lane
Michael & Judy Spencer	42 Hickory Lane
Clarence & Edith Percut	197 Atwoodville Rd

2) **Written Notice to Abutters.** You must notify abutting property owners by certified mail, return receipt requested, stating that a wetland application is in progress, and that abutters may contact the Mansfield Inland Wetlands Agent for more information. Include a brief description of your project. Postal receipts of your notice to abutters must accompany your application. (This is not needed for exemptions).

Part I - Additional Notices, if necessary

- 1) Notice to Windham Water Works is attached. If this application is in the public watershed for the Windham Water Works (WWW), you must notify the WWW of your project within 7 days of sending the application to Mansfield--sending it by certified mail, return receipt requested. Contact the Mansfield Inland Wetlands Agent to find out if you are in this watershed.
- 2) Notice to Adjoining Town. If your property is within 500 feet of an adjoining town, you must also send a copy of the application, on the same day you sent one to Mansfield, to the Inland Wetlands Agency of the adjoining town, by certified mail, return receipt requested.
- 3) The Statewide Reporting Form (attached) shall be part of the application and specified parts must be completed and returned with this application.

Part J - Other Impacts To Adjoining Towns, if applicable

- 1) Will a significant portion of the traffic to the completed project on the site use streets within the adjoining municipality to enter or exit the site? X Yes No Don't Know
2-3 Trucks
- 2) Will sewer or water drainage from the project site flow through and impact the sewage or drainage system within the adjoining municipality? Yes X No Don't Know
- 3) Will water run-off from the improved site impact streets or other municipal or private property within the adjoining municipality? Yes X No Don't Know

Part K - Additional Information from the Applicant

Set forth (or attach) any other information which would assist the Agency in evaluating your application. *(Please provide extra copies of any lengthy documents or reports, and extra copies of maps larger than 8.5" x 11", which are not easily copied.)*

Part L - Filing Fee

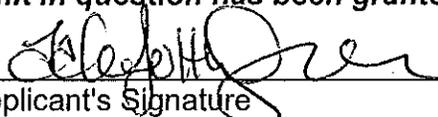
Submit the appropriate filing fee. (Consult Wetlands Agent for the fee schedule available in the Mansfield Inland Wetlands and Watercourses Regulations.)

 \$1,000. \$750. \$500. \$250. \$125. \$100. \$50. \$25.

 \$60 State DEP Fee

Note: The Agency may require you to provide additional information about the regulated area which is the subject of the application, or about wetlands or watercourses affected by the regulated activity. If the Agency, upon review of your application, finds the activity proposed may involve a "significant activity" as defined in the Regulations, additional information and/or a public hearing may be required.

The undersigned applicant hereby consents to necessary and proper inspections of the above mentioned property by members and agents of the Inland Wetlands Agency, at reasonable times, both before and after the permit in question has been granted by the Agency.


Applicant's Signature

10-14-13
Date

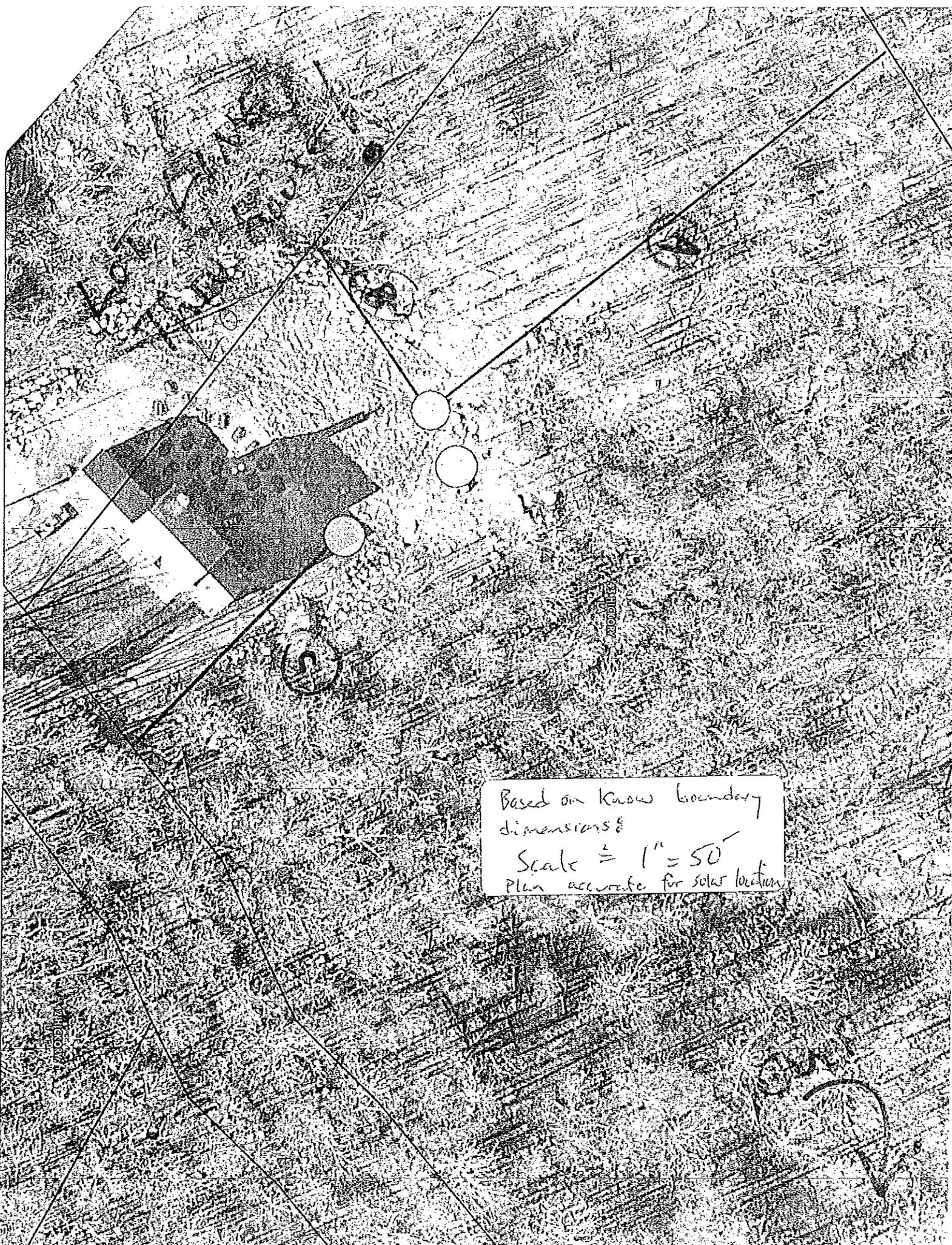
43 Hickory Lane

10-22-13

A, This is the distance from the back property line to the location of (2) pole mounts. 260 Feet

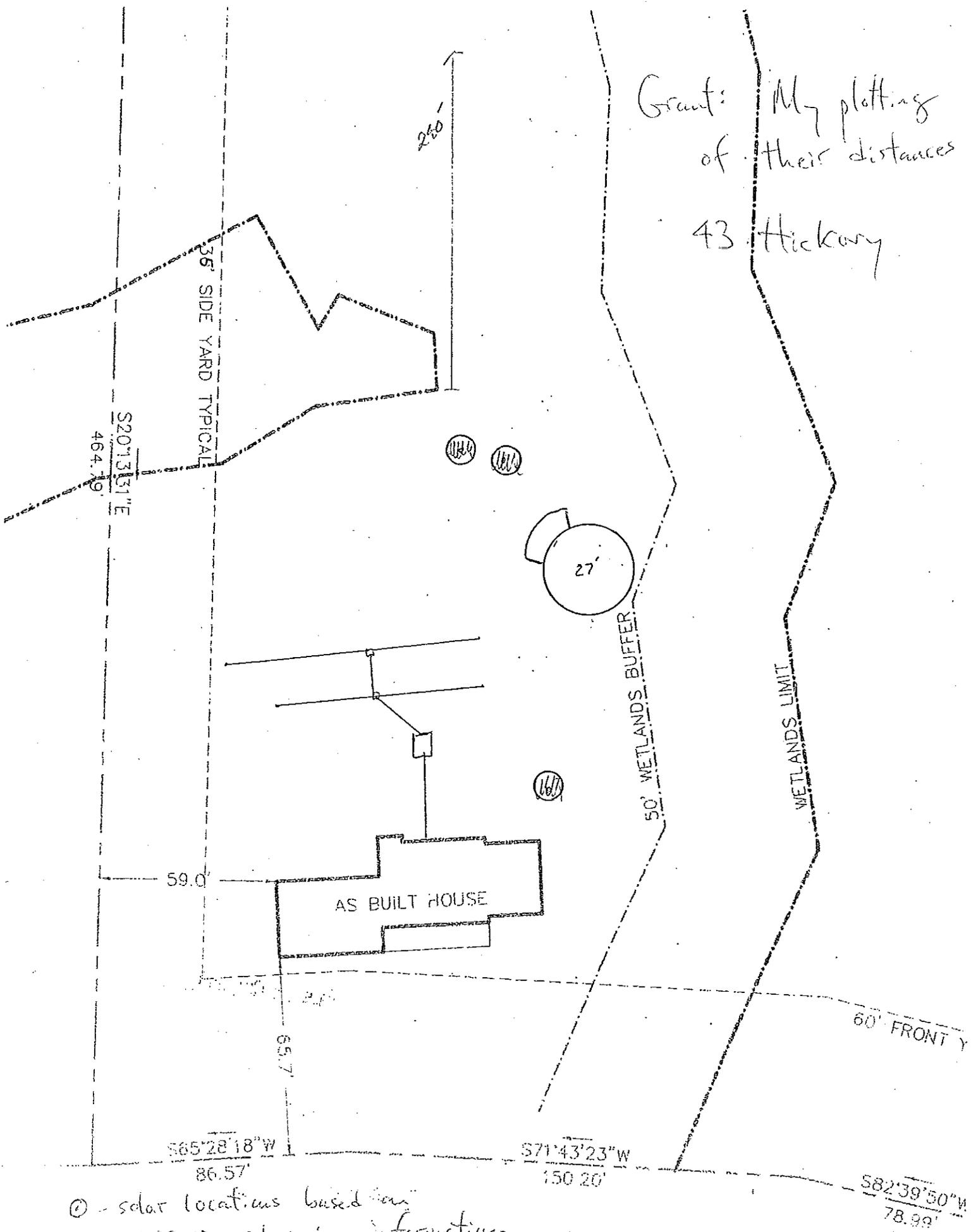
B, This is the distance from the west property line to the location of (2) pole mounts. 89 Feet

C, This is the distance from the road to the location of (1) pole mount. 126 Feet



Based on known boundary
dimensions:
Scale $\hat{=}$ 1" = 50'
Plan accurate for solar location

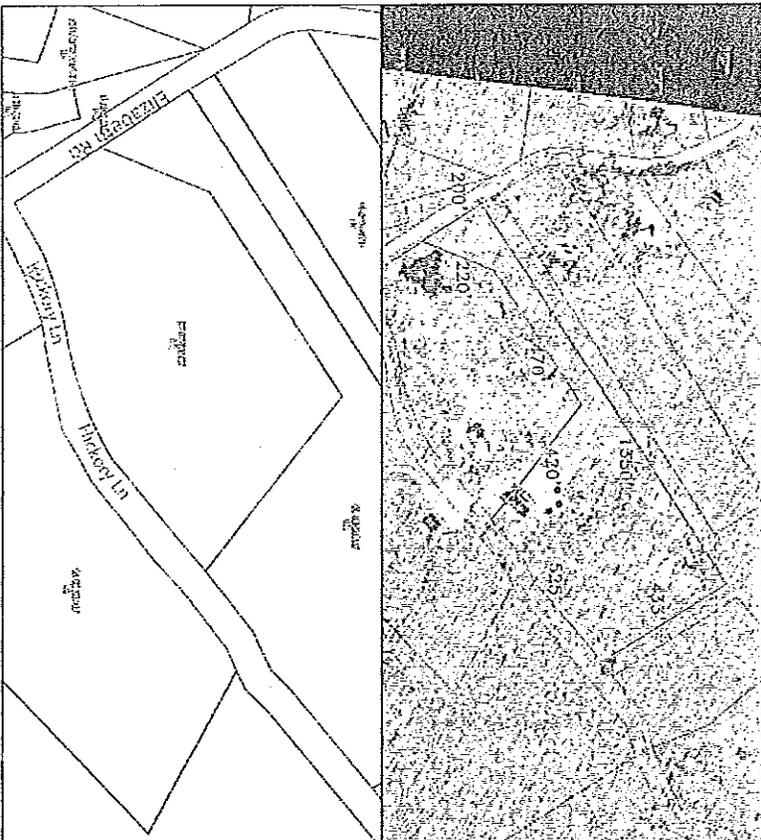
Grant: My plotting
of their distances
43 Hickory



© - solar locations based on
10-22-13 submission information

1" = 40'

PHOTOVOLTAIC PROPOSAL WETLAND INFORMATION

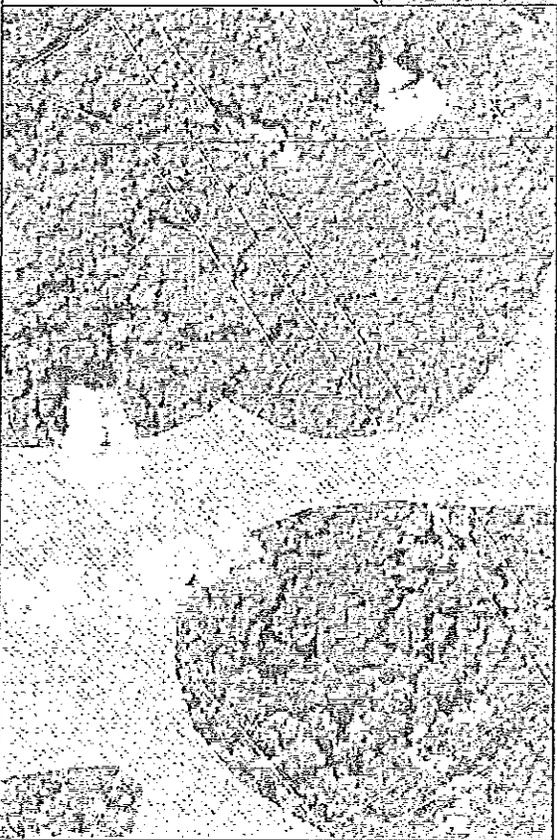


KEY

- PROPERTY LINES
- TRENCHING FOR SOLAR
- SOLAR ARRAYS
- LEACH FIELD

ARRAY IS APPROX. 190' FROM SSE PROPERTY LINE AND APPROX. 120' FROM SSW PROPERTY LINE. 275' FROM NNW PROPERTY LINE AND 460' FROM NNE PROPERTY LINE

NO DRIVEWAYS OR OBSTRUCTIONS IN PATH OF TRENCHING



QUICK SOLAR
542 Hopedale Street
P.O. Box 100
Shelbury, CT 06097
P: 1-860-659-5200
F: 1-860-659-5756
www.quick-solar.com

CLIENT: ST. JEAN

LOCATION: 43 HICKORY LANE
HAUSFELD, CT

PROJECT DESCRIPTION: 9,600WATT SOLAR ELECTRIC SYSTEM

LOAD CALCULATIONS:
ARRAY WEIGHT: N/A LBS.
OF SOLAR STANDOFFS: N/A
WEIGHT PER STANDOFF: N/A LBS.
WIND LOAD: N/A LBS.
ROOFING: N/A SOFT
ROOFING RATED SHEAR: N/A P.S.F.
SPAN: N/A
SIZE: N/A
ADJUST. SIZE: N/A
SPAN: N/A

PERMISSIONS:
DATE: _____
DATE: _____
DATE: _____

ARRAY SPECIFICATIONS:
-40- PHONO DIAMOND
240WATT MODULES
-40- EMPHASE ENERGY
MICRO INVERTERS

MODULE SPECIFICATIONS:
-240W MODULES
-64.6" X 39.1" X 1.8"
-44.1 LBS

180° AZIMUTH
35° POLE MOUNT

W-1

APPLICATION FOR PERMIT
MANSFIELD INLAND WETLANDS AGENCY
4 SOUTH EAGLEVILLE ROAD, STORRS, CT 06268
TEL: 860-429-3334 OR 429-3330
FAX: 860-429-6863

FOR OFFICE USE ONLY
File # 1525
W _____
Fee Paid _____
Official Date of Receipt _____

Request for Exemption

Applicants are referred to the Mansfield Inland Wetlands and Watercourses Regulations for complete requirements, and are obligated to follow them. For assistance, please contact Grant Meitzler, Inland Wetlands Agent at the telephone numbers above.

Please print or type or use similar format for computer; attach additional pages as necessary.

Part A - Applicant

Name Town of Mansfield

Mailing Address 10 S. Eagleville Rd

Storrs - Mansfield, CT Zip 06268

Telephone-Home NA Telephone-Business 860-429-3015 x204

Title and Brief Description of Project

Install a wooden pedestrian bridge over brook

Location of Project Dunhamtown Forest

Intended Start Date ASAP

Part B - Property Owner (if applicant is the owner, just write "same")

Name same

Mailing Address _____

_____ Zip _____

Telephone-Home _____ Telephone-Business _____

Owner's written consent to the filing of this application, if owner is not the applicant:

Signature _____ date _____

Applicant's interest in the land: (if other than owner) _____

Part C - Project Description (attach extra pages, if necessary)

1) Describe in detail the proposed activity here or on an attached page. (See guidelines at end of application – page 6.)

Please include a description of all activity or construction or disturbance:

- a) in the wetland/watercourse
- b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

1) Installation of a bridge (dimensions 16' x 4') across a seasonal brook in the southern portion of Dunham town forest (closest to the White oak Road Entrance).

a) The bridge will be fastened to the ground through use of threaded rods (2' inserted into the wetland)

2) Describe the amount or area of disturbance (in square feet or cubic yards or acres):

- a) in the wetland/watercourse
- b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

There will be no soil excavated, thus no disturbance to the wetlands

3) Describe the type of materials you are using for the project: Pressure treated wood, washers and lag bolts, deck screws, threaded rod

- a) include **type** of material used as fill or to be excavated none
- b) include **volume** of material to be filled or excavated none

4) Describe measures to be taken to minimize or avoid any adverse impacts on the wetlands and regulated areas (silt fence, staked hay bales or other Erosion and Sedimentation control measures).

There will be no soil disturbance, therefore none needed.

Part D - Site Description

Describe the general character of the land. (Hilly? Flat? Wooded? Well drained? etc.)

Gently sloping, wooded natural area in the southern portion of Dunham town forest

Part E - Alternatives

Have you considered any alternatives to your proposal that would meet your needs and might have less impact on the wetland/watercourse? Please list these alternatives.

Other alternatives were considered but they would require use of heavy equipment. The current design has the least impact to the wetlands as it will be executed by hand by a skilled Eagle Scout candidate land troop leaders.

Part F - Map/Site Plan (all applications)

1) Attach to the application a map or site plan showing **existing conditions** and the **proposed project** in relation to wetland/ watercourses. Scale of map or site plan should be 1" = 40'; if this is not possible, please indicate the scale that you are using. A sketch map may be sufficient for small, minor projects. (See guidelines at end of application – page 6.)

2) Applicant's map date and date of last revision October 17, 2013

3) Zone Classification RAR 90

4) Is your property in a flood zone? Yes No Don't Know

Part G - Major Applications Requiring Full Review and a Public Hearing

See Section 6 of the Mansfield Regulations for additional requirements.

Part H - Notice to Abutting Property Owners

1) List the names and addresses of abutting property owners

Name	Address
<i>request for exemption</i>	

2) **Written Notice to Abutters** . You must notify abutting property owners by certified mail, return receipt requested, stating that a wetland application is in progress, and that abutters may contact the Mansfield Inland Wetlands Agent for more information. Include a brief description of your project. Postal receipts of your notice to abutters must accompany your application. (This is not needed for exemptions).

Part I - Additional Notices, if necessary

1) Notice to Windham Water Works is attached. If this application is in the public watershed for the Windham Water Works (WWW), you must notify the WWW of your project within 7 days of sending the application to Mansfield--sending it by certified mail, return receipt requested. Contact the Mansfield Inland Wetlands Agent to find out if you are in this watershed.

2) Notice to Adjoining Town. If your property is within 500 feet of an adjoining town, you must also send a copy of the application, on the same day you sent one to Mansfield, to

the Inland Wetlands Agency of the adjoining town, by certified mail, return receipt requested.

- 3) The Statewide Reporting Form (attached) shall be part of the application and specified parts must be completed and returned with this application.

Part J - Other Impacts To Adjoining Towns, if applicable

- 1) Will a significant portion of the traffic to the completed project on the site use streets within the adjoining municipality to enter or exit the site? ___ Yes ___ No ___ Don't Know
- 2) Will sewer or water drainage from the project site flow through and impact the sewage or drainage system within the adjoining municipality? ___ Yes ___ No ___ Don't Know
- 3) Will water run-off from the improved site impact streets or other municipal or private property within the adjoining municipality? ___ Yes ___ No ___ Don't Know

Part K - Additional Information from the Applicant

Set forth (or attach) any other information which would assist the Agency in evaluating your application. *(Please provide extra copies of any lengthy documents or reports, and extra copies of maps larger than 8.5" x 11", which are not easily copied.)*

Part L - Filing Fee

Submit the appropriate filing fee. (Consult Wetlands Agent for the fee schedule available in the Mansfield Inland Wetlands and Watercourses Regulations.)

___ \$1,000. ___ \$750. ___ \$500. ___ \$250. ___ \$125. ___ \$100. ___ \$50. ___ \$25.

___ \$30 State DEP Fee

Note: The Agency may require you to provide additional information about the regulated area which is the subject of the application, or about wetlands or watercourses affected by the regulated activity. If the Agency, upon review of your application, finds the activity proposed may involve a "significant activity" as defined in the Regulations, additional information and/or a public hearing may be required.

The undersigned applicant hereby consents to necessary and proper inspections of the above mentioned property by members and agents of the Inland Wetlands Agency, at reasonable times, both before and after the permit in question has been granted by the Agency.

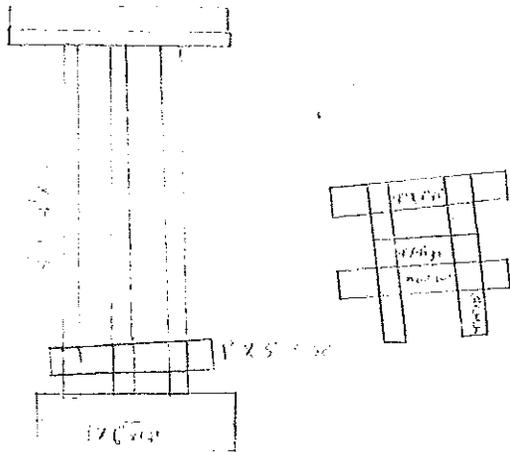
Applicant's Signature

Jennifer Kaufman

Date

10/17/2013

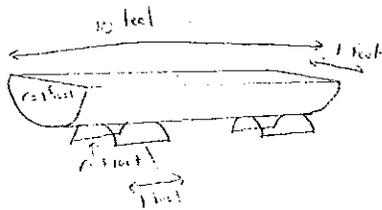
Schematic



The larger image is a design of the foot bridge

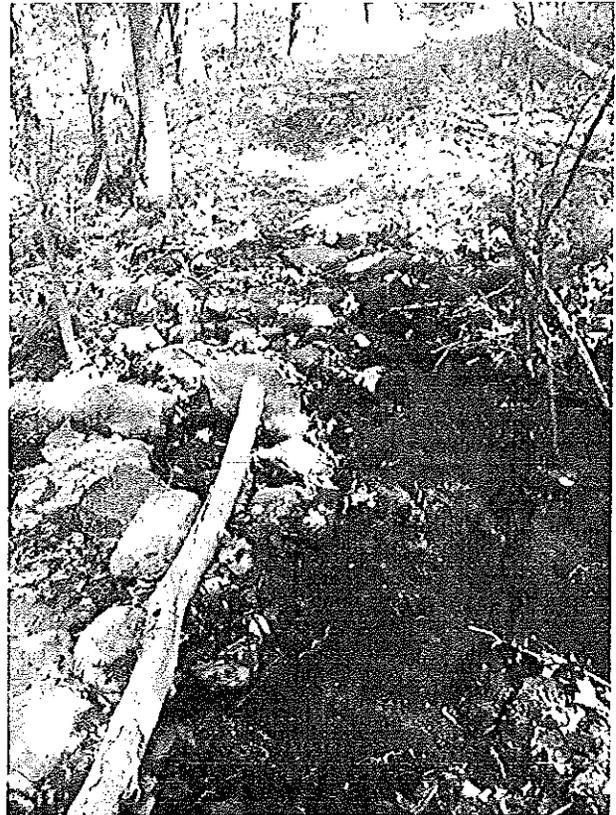
The smaller image is what the steps at both ends of the bridge will look like

r = radius



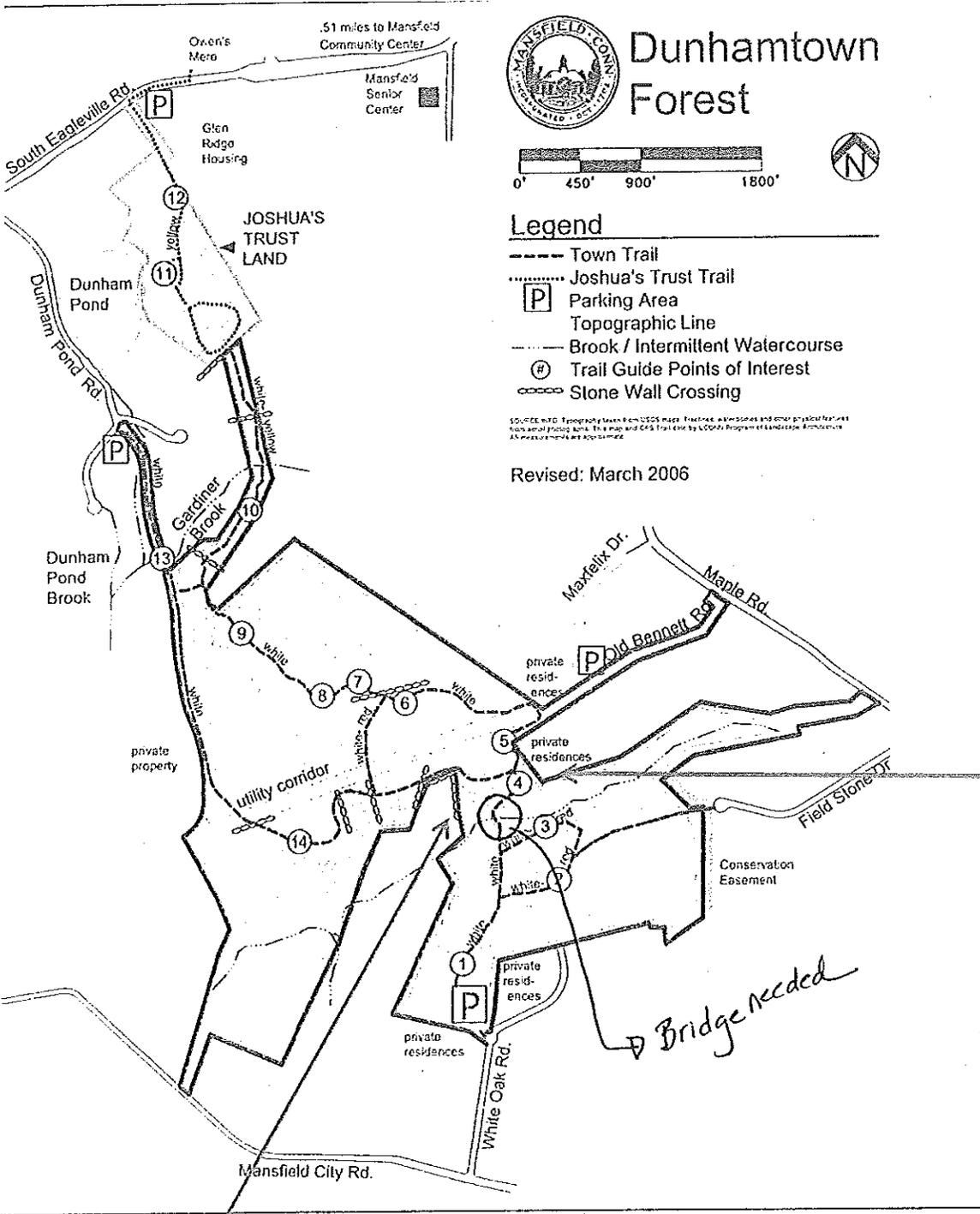
A bench will be included to use as a resting stop for those on the trail

Images from the current site (before)



Appendix A
Images from a similar project





Dunhamtown Forest



Legend

- Town Trail
- Joshua's Trust Trail
- Parking Area
- Topographic Line
- Brook / Intermittent Watercourse
- Trail Guide Points of Interest
- Stone Wall Crossing

SOURCE: 1:25,000 Topographic maps from USGS maps. Features, elevations and other physical features from aerial photos and GIS. The map and GIS features by USGS's Program of Landscape Architecture. All measurements are approximate.

Revised: March 2006

Bridge needed

October 17, 2013

The Habitat

A newsletter of the Connecticut Association of Conservation and Inland Wetlands Commissions, Inc.

Fall 2013

volume 25 number 3



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What to Know About Native Plants Now

As Information and Availability Increase, So Does
Opportunity for Municipalities to Use Them

By Kathy Connolly, MA Landscape Planning and Design,
Principal, Speaking of Landscapes, LLC

This is the first of a two-part series. This article explores the importance of native plants, their emerging presence in the nursery trade, and information sources for the interested homeowner or conservation volunteer. The second article, to appear in the spring Habitat newsletter, will focus on specific native plants for southern New England and sources of plant materials.

It's been a long time since I was first surprised by a large prickly pear cactus in an Old Lyme woodland. To my amazement, a botanist friend told me this spiny succulent, which I associated with dry southwestern scenes, is a southern New England native. More surprises followed. We have native orchids and carnivorous plants, for instance. Those were great bits of trivia for an evolving plant geek.



*Prickly Pear
Prickly (Opuntia humifusa) is a New England native. According to information from the Xerxes Society, its flowers are valuable to a variety of native bees. Photo by Kathy Connolly*

But the survival of native plants is not a trivial pursuit and, in the days since my own awakening to their ecological value, the discussion of their role and importance has moved beyond academics and regulators to gardeners, landscape designers and the pages of the main stream media.

What is a native plant? According to botanist Elizabeth Farnsworth, Ph.D., a senior scientist and interim education director at the New England Wild Flower Society, native designation is given to plants that were on the New England landscape before colonial settlement. (Colonists imported both plants and animals native to Europe and their imports made swift changes to regional flora.) Botanists, she

native plants, continued on page 6

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www.caciwc.org

CACIWC News Briefings

CACIWC was honored to join dozens of other environmental groups, state and local officials, and Connecticut conservationists of all ages on Wednesday, August 1, 2013 for the Connecticut State Parks Centennial Kick-Off celebration at Dinosaur State Park in Rocky Hill. Lieutenant Governor Nancy Wyman, Department of Energy and Environmental Protection (DEEP) Commissioner Dan Esty, Centennial Committee Chairman Pam Adams, and others welcomed all those present and outlined events scheduled through 2014. For more information on these events (including opportunities for local commission volunteers), please visit the State Parks Centennial website at: www.ct.gov/deep/cwp/view.asp?a=2716&q=523470&deepNav_GID=2135.

1. To help promote this year-long celebration of Connecticut State Parks, CACIWC is dedicating our 36th Annual Meeting and Environmental Conference, scheduled for Saturday, November 16, 2013, with the theme of *Celebrating Connecticut Parks and Open Spaces*. CACIWC is pleased to inform you of our new conference location at the Courtyard by Marriott Cromwell (4 Sebethe Drive Cromwell, CT 06416). Based on your suggestions, the Annual Meeting Committee has organized a new series of informative workshops on how best to support existing open space parcels and preserve important local habitats. You should have already received a copy of the annual meeting registration form in a recent mailing. Additional detailed conference information can be found in this issue of *The Habitat* and on our website: www.caciwc.org. Please complete and mail your registration form to us ASAP if you have not yet done so to reserve a place at our conference. You may direct any questions on our annual meeting to us at: AnnualMtg@caciwc.org.

2. It is not too late to renew your 2013-14 membership dues and take advantage of the \$15/per person annual meeting registration discount. A copy of the membership dues notice form mailed to you in July can be found on our website: www.caciwc.org. Our website also provides a description of additional individual and business membership categories that you or your company can use to provide additional support to CACIWC. We continue to very much appreciate any additional contributions that you can provide to support various CACIWC programs including our Annual Meeting, educational materials, and *The Habitat*.

3. We have been pleased to receive many informative comments on our conservation commission and inland

CACIWC news, continued on page 13

Running Bamboo — A Management Problem for Natural Areas?

Passage this year of Public Act 13-82, An Act Regulating the Planting and Sale of Running Bamboo (see New Law, page 4) has alerted CACIWC to the potential for running bamboo to become a management concern for Conservation and Inland Wetlands Commissions.

Legislative testimony during public hearing for P.A. 13-82 indicates that, while running bamboo does not meet the criteria for inclusion on the Invasive Plant Council's (IPC) invasive plant list (see Criteria, page 5), it may grow aggressively and spread from its original planting site, cross property boundaries, and establish in neighboring yards, managed landscapes and forested sites. Once established, these populations frequently cause property damage and can be difficult and costly to control or remove.

Testimony supporting regulation of planting and sale of running bamboo (P.A. 13-82) indicates that the species of most concern in Connecticut is *Phyllostachys aurea*, golden bamboo, the most common

and aggressive bamboo species. In a July 21, 2011 letter printed in the 2011 Annual Report of the Connecticut Invasive Plant Working Group, www.cipwg.uconn.edu/bamboo, Jeffery S. Ward, Chief Scientist, Forestry and Horticulture, CT Agricultural Experiment Station, warns that golden bamboo can cause localized severe impacts to disturbed forests and riparian habitats and may be able to colonize riparian areas if rhizome fragments are washed out during storms and deposited downstream.

In southern forests of the U.S., bamboo is considered an invasive plant requiring annual monitoring and control. (Letter submitted as testimony from James H. Miller, Emeritus Scientist Research Ecologist and Senior Certified Ecological Ecologist, The Science Society, USDA Forest Service, Southern Research Station, Auburn, AL to Ms. Caryn Rickel.)

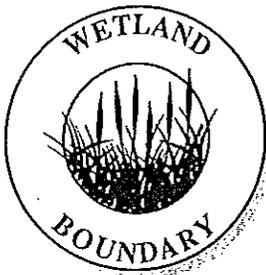
The evidence noted above should convince Conservation and Inland Wetlands Commissions to research and become familiar with the behavior and potential impacts to natural areas associated with the spread of running bamboo. Commissions can also develop education tools to engage the community in preventing spread of running bamboo.

The link to CIPWG, noted above, has a wealth of information to start assembling community outreach materials —posting the link on the town's website would be a good start. ↴

~ Tom Odell

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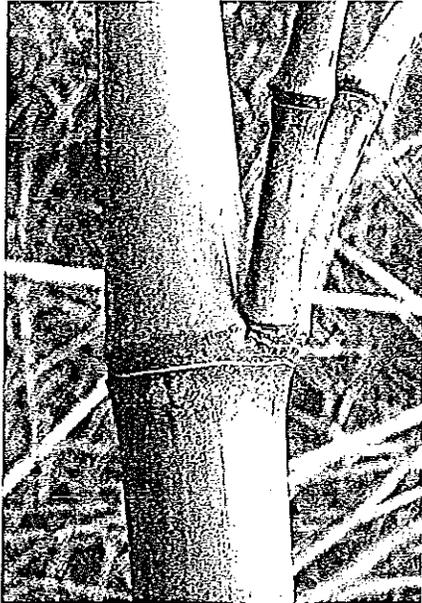
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New Law on Bamboo in Connecticut

by Logan Senack, CT Invasive Plant Coordinator, UConn

Public Act 13-82, An Act Regulating the Planting and Sale of Running Bamboo, was passed by the Connecticut General Assembly and signed into law by the Governor earlier this year.



Golden Bamboo, *Phyllostachys aurea*
Photo by Chuck Barger, University of Georgia, Bugwood.org

The new law covers all bamboo in the genus *Phyllostachys*, a genus of large, running bamboo that spreads by underground rhizomes, and regulates how those bamboo species can be planted and sold. Species of *Phyllostachys* are sold as privacy screens or ornamental plants, but can grow quickly and spread rapidly

from an initial planting location to nearby areas by underground rhizomes.

As of October 1, 2013, all new bamboo plantings (of any species covered by the law) that are planted within 100 feet of a property line or right-of-way must be planted either above-ground in a container or planted with a properly constructed and maintained barrier system to ensure that the bamboo does not spread. The law specifically assigns liability to property owners who allow bamboo to spread to areas outside the boundaries of their property.

Because this component of the law would be settled via civil proceedings, its precise impact remains to be seen and each case may be unique. Nothing in the law limits the assignment of liability during civil proceedings for events occurring prior to October 1, 2013 or for situations not addressed by this law.

Public Act 13-82 also requires that retailers who sell or install running bamboo provide information to customers who purchase any of the covered bamboo species. The statement must include information about the law and advice on how to contain bamboo.

The Connecticut Invasive Plants Council (IPC) examined whether or not some species of bamboo should be listed as invasive plants under the state's invasive plant laws (see page 5). After investigating the issue and visiting various locations where bamboo was found in the state, the IPC determined that running bamboo did not meet the criteria for listing as an invasive plant. A major factor in the discussion was that bamboo appears to become established only in areas in the immediate vicinity of intentional plantings, and does not

appear to establish in new locations on its own. However, recognizing that bamboo does pose a problem for homeowners who are impacted by the local spread of the plants, the IPC provided testimony in support of Public Act 13-82 when it was being considered by the Legislature. The testimony included the following statement: "... although running bamboo may not meet the criteria for inclusion on the invasive plant list, the IPC acknowledges that it may grow aggressively and spread

from its point of origin, sometimes crossing property boundaries and establishing in abutting parcels."

For additional resources relating to bamboo, including information on appropriate identification, control, and recommended containment measures, please visit www.cipwg.uconn.edu/bamboo.



Infestation, Golden Bamboo, *Phyllostachys aurea*
Photo by Nancy Fraley, USDI National Park Service, Bugwood.org



Golden Bamboo, *Phyllostachys aurea*
Photo by Chuck Barger, University of Georgia, Bugwood.org

Criteria for Listing on Connecticut Invasive Plant List

Defined by Connecticut General Statute 22a-381b

Statute Text - Current as of 2013

(a) In publishing and updating the list of invasive plants required under section 22a-381a, the Invasive Plants Council shall determine that a plant possesses the following characteristics before it is included on such list: (1) The plant is nonindigenous to the state; (2) the plant is naturalized or has the potential to become naturalized or occurring without the aid and benefit of cultivation in an area where the plant is non-indigenous; (3) under average conditions, the plant has the biological potential for rapid and widespread dispersion and establishment in the state or region within the state; (4) under average conditions, the plant has the biological potential for excessive dispersion over habitats of varying sizes that are similar or dissimilar to the site of the plant's introduction into the state; (5) under average conditions, the plant has the biological potential for existing in high numbers outside of habitats that are intensely managed; (6) the plant occurs widely in a region of the state or a particular habitat within the state; (7) the plant has numerous individuals within many populations; (8) the plant is able to out-compete other species in the same natural plant community; and (9) the plant has the potential for rapid growth, high seed production and dissemination and establishment in natural plant communities.

(b) In publishing and updating the list of potentially invasive plants required under section 22a-381a, before including a plant on such list the Invasive Plants Council shall determine that a plant: (1) Possesses each of the characteristics set forth in subdivisions (1) to (5), inclusive, of subsection (a) of this section; and (2) possesses at least one of the characteristics set

forth in subdivisions (6) to (9), inclusive, of subsection (a) of this section.

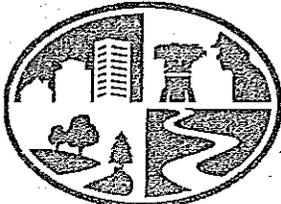
(c) Upon a finding that a plant meets the criteria for listing as an invasive plant under subsection (a) of this section, or as a potentially invasive plant under subsection (b) of this section, prior to listing such plant as invasive or potentially invasive, as applicable, the majority of the council's membership shall approve of such listing. On the request of two or more members of the council, the council shall hold a meeting, open to the public, not later than thirty days prior to the publication of the initial invasive plant list or the addition of any plant to the invasive plant list, as applicable.

(d) In listing a plant as invasive or potentially invasive, the council may make recommendations on how to discourage the sale and import of such plants in the state and identify alternative plants to the listed plant for growing purposes.



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native plants, continued from page 1

says, use seven or more criteria to evaluate the historical and botanical evidence - not a task for the casual flower-seeker. Nor does the topic lend itself to black-and-white interpretation, and controversy sometimes ensues.

Ambiguities aside, research shows that plants with an evolutionary history in a place play a critical role in the local cycle of life. In the widely read book "Bringing Nature Home" (Timber Press), University of Delaware professor Douglas Tallamy shows how, plant for plant, natives support many more species of insects than non-natives. (See book review, page 12)

Indeed, highly publicized declines in bee populations and threats to beautiful monarch butterflies have created visibility for native plants. Widespread discussion of invasive nonnative plant species raised their visibility, too.

Elimination of native plants adversely impacts larger wildlife, too. Anthony Irving, a consulting forest ecologist and principal at EECOS in Lyme, says, "Think of the loss of wild rice along the Connecticut River

and the impact on waterfowl. Think how the loss of the American chestnut, which made up about one-third of our upland woodlands at the turn of the 20th century, impacted forest wildlife."

He points out new threats. "Today, we have to worry about the loss of ash to emerald ash borer," he adds. "And the Asian longhorn beetle could be devastating, especially to our native maples and birches."

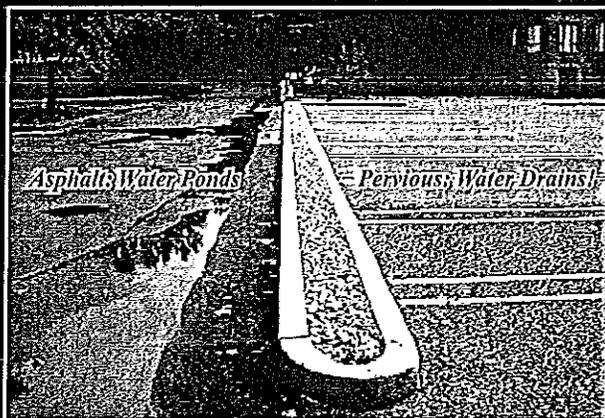
In the past, conservation commissions have played major roles in promoting the survival of natives through plans of conservation, through habitat preservation, and by ordering restoration programs.

Now, thanks to trends in the nursery industry and the widespread availability of information on the Internet, there is a new opportunity—that of recommending native plants for managed landscapes such as streets, parks, and around municipal buildings.

Academic research on landscape adaptability of specific species, such as that underway at the University of Connecticut by Dr. Jessica Lubell, encourages

native plants, continued on page 7

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native plants, continued from page 6

members of the nursery trade to invest in commercial production. Nursery programs such as the American Beauties series promoted by Pride's Corner in Lebanon, CT, are making it possible.

At the same time, the Internet now offers many authoritative sources of information on native plants, including availability and planting instructions.

According to most experts, the use of these plants is more than an opportunity—it should be an imperative. In "Bringing Nature Home," Douglas Tallamy explains that open spaces, which once lazily hosted the slow co-evolution of local plant and insect communities, have either disappeared or are now also occupied by nonnative invasive species. He shows why the land around our homes, businesses and community spaces may be the last best hope for the natural associations between native plants and native fauna.

There's no time like the present to embrace these developments. Here are some excellent resources to support your efforts:

1) Dr. Jessica Lubell's UConn web page offers four guides to regional native shrubs and trees for landscape applications under the "current projects" section: www.canr.uconn.edu/plsc/plsc/lubellcv.html. She also maintains a colorful Facebook page, "Native Plant Gal."

2) Ready for a great list of Connecticut native wildflowers and perennials? Check out the Connecticut Botanical Society's "Gardening with Native Plants": www.ct-botanical-society.org/.

3) And if you're wondering about which pollinators enjoy that plant, try Lady Bird Johnson Wildflower

Research Center's Wildflower.org. Each plant record details the plant's relationship to specific insects and wildlife, its growing conditions, and how to find it among commercial sources. Visit www.Wildflower.org.



Oxeye Daisy and Ninebark
Native Oxeye daisy (*Heliopsis helianthoides* 'Summer Nights') is striking in front of Common Ninebark (*Physocarpus opulifolius* 'Summer Wine'). Oxeye daisy attracts hummingbirds and supports predatory or parasitoid insects that prey upon pest insects, according to the Xerxes Society. Common Ninebark has magnificent white flowers that have special value to both native bees and honeybees. It has come out of the woods in the past 20 years and now has upwards of 10 cultivars in commercial trade.
Photo by Kathy Connolly

4) To learn more about the American Beauties series and obtain a list of available species and cultivars, visit: www.abnativeplants.com.

5) And after a visit to American Beauties, check out the native status of a particular plant in your Connecticut county by visiting the New England Wildflower Society's authoritative "Go Botany" database: <http://gobotany.newenglandwild.org>.

6) For a plant-by-plant discussion of pollinator habitats, read the Xerxes Society's "Attracting Native Pollinators" (Storey Publishing). See www.xerxes.org/books/.

Kathy Connolly specializes in naturalized landscape designs. She writes a column for *The Day in New London* and is a frequent speaker on topics related to landscape sustainability. Visit her web site at www.SpeakingofLandscapes.com. Email: Kathy@SpeakingofLandscapes.com.

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CACIWC's Environmental Conference Workshops

SESSION 1 (9:30 - 10:30 AM)

(* Denotes Advanced Workshop)

SESSION 2 (10:45 AM - 11:45 PM)

(* Denotes Advanced Workshop)

Open Space &
Conservation Biology Track

A1. "Planning for the Future of Farms in Your Community"

Kip Kolesinskas, Consulting Conservation Scientist, American Farmland Trust

How to make the case for protecting agricultural land and paying for it! This workshop will highlight ways to support agriculture, protect farmland, and leverage the State and Federal funds to make it happen. The workshop will define: purchasing development rights, how to write farm friendly easements and leases, the role PA 490 and local regulations play in agricultural viability, sources of grants and funding for public and private lands conservation, and will cover: Can agriculture be an economic engine? How can farms increase a town's appeal, safeguard the environment and add to revenue base? How does your town view agriculture?

A2. "From Bittersweet to Barberry: An Update on Invasive Plants in Connecticut"

Logan Senack, Connecticut Invasive Plant Coordinator UConn Department of Plant Science and Landscape Architecture

Many Conservation Commissions struggle to prevent invasive plants from altering important habitats within their community. This workshop will update invasive plant management information including potential new plants to watch for, early detection of invasive species, mile-a-minute distribution in the state, and restrictions on the sale and use of invasive plants such as Oriental or Asiatic bittersweet in holiday decorations. The new public act concerning running bamboo, not considered invasive in Connecticut, will also be discussed.

Land Use Law &
Legal Updates Track

B1. "CEPA, Upland Review Areas, and Vernal Pools: A Legal Perspective"

Janet Brooks, Attorney at Law, LLC

Attorney Brooks will present the results from her fall 2013 survey of municipal wetlands regulations (that have been made available online) in which she examined the definitions of regulated activities and upland review areas and express consideration of vernal pools. This year's statutory amendments to the CT Environmental Protection Act will also be covered.

B2. "2013 Wetlands Law Update with Question & Answers Session"

Janet Brooks, Attorney at Law, LLC; David Wrinn, CT Attorney General's Office; Mark Branse, Branse, Willis & Knapp, LLC

This trio of wetlands attorneys has been brought back by popular demand to keep you current with the latest state Supreme Court and Appellate Court cases and legislative amendments to the CT Environmental Protection Act. This workshop will also include a 30-min question-and-answer session that you asked for!

Wetlands Science &
Engineering Track

C1. "Rain Gardens 101"

Mike Dietz, Director, Connecticut NEMO Program

Rain gardens seem to be all the buzz in stormwater treatment but knowing how to install and maintain them is key to their success. This workshop will explain the mechanics of design and installation so they function as they were truly intended.

C2. "Dam Removal: To be Dammed or Not to be Dammed"

Laura Wildman, PE, Director, New England Regional Office, Princeton Hydro, LLC

This workshop will explore the reasons why dams were built, pros and cons in removing them, and alternatives to their removal. What is the cost of maintaining a dam versus returning to a natural waterway?

Commission Administration &
Planning Track

D1. "Planning for Climate Change & Extreme Weather Events: Adapting for Community Resiliency"

*Juliana Barrett, PhD, CT Sea Grant College, UConn
Denise Savageau, Conservation Director, Greenwich, CT
George Bradner, Director, CT Insurance Department*

Hurricanes Irene and Sandy revealed the potential threats faced by coastal and inland communities across CT – are we prepared for the future? Ms. Barrett will describe the environmental impacts of severe storms on coastal and inland wetlands, and management options for wetland adaptation to climate change. Ms. Savageau will explain Connecticut's Climate Change Preparedness and Natural Hazard Mitigation Plans, and the role of CCs in helping to prepare for extreme climate events. Mr. Bradner will discuss the State's preparation, response and recovery operations during disasters and long term recovery planning.

D2. "Lake Monitoring & Management"

Larry Marsicano, President, Connecticut Federation of Lake (CFL) & Executive Director, Candlewood Lake Authority (CLA); Charles Lee, Environmental Analyst, Bureau of Water Protection and Land Reuse, DEEP

Our Lakes are an important part of Connecticut's natural beauty and heritage. They provide recreational opportunities but serve as important habitats for migratory birds, fish and other aquatic animals and plants. Unfortunately, development and recreational uses threaten the quality of these habitats. This workshop discusses the efforts of the DEEP, the Connecticut Federation of Lake, the Candlewood Lake Authority, and other organizations in preserving lakes in Connecticut. The workshop will also discuss the roles of local conservation commissions and other land-use commissions in serving as effective partners in maintaining these important aquatic habitats.

Saturday, November 16, 2013

SESSION 3 (2:00 - 3:30 PM)

(* Denotes Advanced Workshop)

A3. "Vernal Pools: A Primer for Protection"

Hank Gruner, Herpetologist, Vice President of the Connecticut Science Center;

Ed Pawlak, Soil Scientist, Connecticut Ecosystems LLC

In order to effectively protect vernal pool inhabitants, Conservation and Inland Wetlands Commissions need to understand their biology and habitat requirements, and to develop comprehensive inventories of vernal pools within their communities. In this workshop, Hank Gruner will discuss vernal pool basics - definition, biota, hydrology and landscape connections. Ed Pawlak will discuss the identification of vernal pools through remote sensing and field verification, as well as vernal pool monitoring programs.

B3. "The Roles of Conservation and Inland Wetlands Commissions in the P&Z Application Process"

Attorney Mark Branse, Branse, Willis & Knapp, LLC

This workshop will discuss how both municipal Conservation Commissions and Inland Wetlands Commissions can work more effectively with their local Planning & Zoning (P&Z) Commission to minimize the environmental impact made by new development. The workshop will elaborate on the suggestion of previous sessions that wetlands agencies should adopt LID regulations in conjunction with their town's P&Z commissions. Joint efforts between Conservation and P&Z Commissions to promote compliance with state and local Plans of Conservation and Development can ensure the long-term protection of important habitats. Other cooperative strategies will also be discussed.

C3. "Managing Streams in the Urban/suburban Environment"

Jim MacBroom, M.S.; Vice-President, Milone & MacBroom;

Learn the connection between the landscape and the dynamics of stream morphology. Do trees that fall during a storm even or other natural occurrence help or hinder a river's ecology? What is the best way to cross a stream to get to the other side and should watercourses be straightened or armored? Learn the basics of stream pattern dynamics and the ecological relationship between trees, streams and wildlife and how hydrology and floodplains may be affected by managing them.

D3. "Use of GIS & GPS in Trail and Land Management"

Emily Wilson and Cary Chadwick, UConn, College of Agriculture and Natural Resources, Center for Land Use Education and Research (CLEAR)

Many Conservation Commissions have become successful in preserving open space parcels in partnership with local land trusts and other groups. These commissions are called upon to do natural resource inventories, develop land management plans, mark boundaries and establish trails. The value of geographic information system (GIS) and Global Positioning System (GPS) tools is well recognized in mapping and documentation. This workshop will outline the latest improvements in these tools and review the various imagery sets available on Connecticut Environmental Conditions Online (CT ECO), a cooperative work of the DEEP and UConn CLEAR. The session is BYOL (bring your own laptop) and time will be provided at the end for hands on exploration of CT ECO and other mapping resources.

**CACIWC 2013 Annual
Recognition Awards**

There is still time to submit your nominations for a CACIWC annual award. Nominations will be accepted until **October 31, 2013** in six award categories:

1. Wetlands Commission of the Year
2. Conservation Commission of the Year
3. Wetlands Commissioner of the Year
4. Conservation Commissioner of the Year
5. Commission Agent or Staff of the Year
6. Lifetime Achievement Award

Please see www.CACIWC.org for the nomination form and additional information. Completed nomination forms should be emailed to the CACIWC Annual Award Nominations Committee at: AnnualMtg@CACIWC.org.

SCHEDULE FOR THE DAY

Registration & Breakfast	8:30 - 9:00 a.m.
Welcome & Business Mtg.	9:00 - 9:30 a.m.
Session 1 Workshops	9:30 - 10:30 a.m.
Break 1	10:30 - 10:45 a.m.
Session 2 Workshops	10:45 - 11:45 a.m.
Break 2	11:45 - 12:00 noon
Lunch & Keynote Speaker & Awards	12:00 - 1:30 p.m.
Break 3	1:45 - 2:00 p.m.
Session 3 Workshops	2:00 - 3:30 p.m.
Final display viewing	3:30 - 3:45 p.m.

Displays will be on view
from 8:30 a.m. - 3:45 p.m.

Remembering Katchen Coley *by Tom Odell*



Katchen Coley, 89, died on August 19, 2013 of pancreatic cancer at her Middletown, Connecticut home. Katchen was a true and dedicated environmental activist and ardent advocate for preserving open space. She will be missed by the many people that her friendship and passionate voice for conservation touched.

Katchen's distinguished career of environmental activism included over 22 years of very active participation on Middletown's Conservation Commission. Her ardent support for open space and habitat protection, emerging lobbying skills, and "never take no for an answer" tactic helped spearhead the preservation of large swaths open space and farmland in Middletown. For her work on the Conservation Commission and extended state-wide efforts to raise awareness of environmental issues, particularly open space preservation, she received CACIWC's "2006 Lifetime Achievement Award".

Over the next seven years Katchen continued active participation on the Conservation Commission, served as conservation chair of the Middletown Garden Club—annually lobbying for them in Washington,

and was an active member of the Connecticut Land Conservation Council's Steering Committee. During this period Katchen also served on the Rockfall Foundation's Environmental Award's Sub Committee; it was here that I was exposed to her extraordinary capacity for remembering people and their achievements—in detail. She recognized emerging conservation activism with ardent support, and friendship!

Now, in 2013 and beyond, Katchen's lifetime achievement will be measured in the people she has encouraged and influenced to follow in her steps to make a difference; now and beyond, friends forever.

Katchen will be remembered.

Editor's Note: To honor her and keep her dreams alive Katchen's daughters have established the Katchen Coley Conservation Fund created for the preservation and enhancement of open space in Middletown and adjacent towns. For information on the fund contact the Community Foundation of Middlesex County, 211 South Main Street, Middletown, CT 06457.

ENVIRONMENTAL PLANNING SERVICES

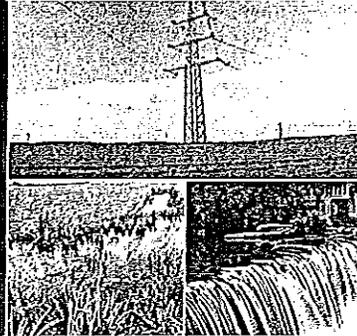
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Editor's Note: The following case law applies only to unpaid volunteers working with nonprofit, 501(c)(3), organizations. It does not apply to municipal commissioners. Municipal commissioners can Google, "CT volunteer immunity statute for municipal commissions" to see how you are covered. You might also wish to forward this case law information to nonprofit organizations such as land trusts that you work with.

Connecticut Case Law: Board Officer Immune From Liability

Re-printed courtesy of Rob Levin, Esquire, from the Maine Land Conservation Law E-Bulletin, May 2013.
To receive MLCL E-Bulletins please send request to rob@roblevin.net

A recent Connecticut court decision demonstrates the value of state volunteer immunity laws in protecting volunteers from tort liability exposure. In *Sweeney v. Friends of Hammonasset, Inc.*, 140 Conn. App. 40, 58 A. 3d 293 (Conn. App. Ct. 2013), a man was injured after slipping on ice during a night time owling outing. The man sued both a nonprofit corporation, as well as its volunteer Board president. The suit claimed that the president was negligent in her supervising, training and oversight duties. The president invoked Connecticut's volunteer immunity statute as a defense.

The appellate court upheld the trial court in ruling for the president on summary judgment, finding that

Connecticut's volunteer immunity statute (which provides complete immunity) applied and was not preempted by the federal volunteer immunity statute (which provides immunity only for economic losses and not non-economic losses such as pain and suffering).

The court pointed to the federal statute's section on preemption, which provides that any state law extending additional protection from liability relating to volunteers would not be preempted by the federal statute. The court also broadly interpreted a director's "policy or decision-making responsibilities" to include supervision, oversight, and training matters, the crux of plaintiff's allegations against the president.

It is comforting to see an appellate court issue a broad interpretation of a state volunteer immunity statute. Note that a typical commercial general liability (CGL) insurance policy would provide defense and liability coverage for both Friends and the president in this kind of litigation, as both the corporation and its officers, directors, and other volunteers are generally named insureds. In contrast, a typical directors and officers (D&O) policy would not be of any use here because that sort of policy generally excludes bodily injury and property damage claims. ↩

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Editor's Note: The following book view by Dr. Burton, edited by Association of New Jersey Environmental Commissions, Inc., appeared in ANJEC's Winter 2013 Newsletter and is re-printed with permission. The appendix of "Bringing Nature Home" has a guide to native plants by region. Dr. Burton has extended his offer of a free copy of "Bringing Nature Home" to each municipal CACIWC member. To receive a free copy for your town email request to OBrien.Donnie@gmail.com.

Book Reviews

What we're reading

Bringing Nature Home: How You Can Sustain Wildlife with Native Plants

By Douglas W. Tallamy

Review by Ben Burton, DPT

Note: Dr. Burton of Wayne Orthopedic Physical Therapy is offering a free copy of Bringing Nature Home to each municipality in New Jersey at his own expense in the interest of improving the health of our communities and to reduce municipal expense. To receive a free copy for your town, email OBrien.Donnie@gmail.com.

Municipalities can no longer afford to spend tens of thousands of dollars on gardening, landscaping, and pest control. We can no longer safely relegate nature to our parks and preserves, assured that it will be there for us when we need it. We can no longer continue to lose key plant, tree, and wildlife species which make America, America!

In a review of *Bringing Nature Home* by Douglas W. Tallamy, the *Washington Post* said this book "...provides the rationale behind the use of native plants, a concept that has rapidly been gaining momentum. The text makes a case for native plants and animals in a compelling and complete fashion."

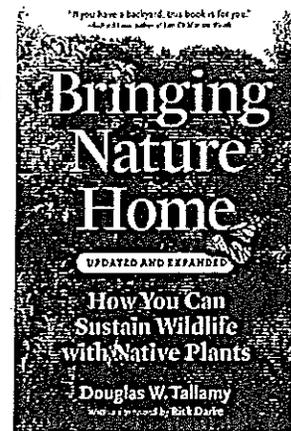
The typical suburban landscape is a highly simplified community consisting of a few species of alien ornamental plants. They have brought a host of alien insects such as the Japanese beetle, cottony cushion scale, viburnum leaf beetle, citrus long-horned beetle, hemlock woolly adelgid, and the balsam woolly adelgid. We have recently been completely overrun with Asian stink bugs.

Invasive pests have had a serious impact on agriculture. The soybean aphid has cost hundreds of millions of dollars in yield reduction since its introduction in 2000. Citrus Greening disease, a deadly infection that makes fruit inedible before it kills the tree altogether, is threatening to put an end to the \$9 billion citrus industry in Florida. Close to home, the southern pine beetle is killing trees in our treasured Pine Barrens. Alien plants such as purple loosestrife, garlic mustard, multiflora rose, autumn olive, kudzu, and oriental bittersweet cost thousands upon thousands of dollars to control in our parks, open space, and recreational areas.

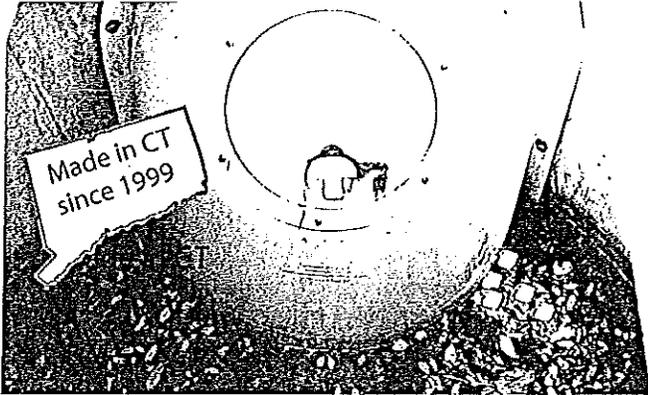
Unless we pay more attention to how we modify the places we live, work, and play to meet not only our own needs but the needs of wildlife, our native species will disappear forever.

I encourage you to assess the plant materials being used in sidewalk plantings, parks, gardens, and open space projects and make a choice to use species native to our country and state.

In the appendix of *Bringing Nature Home*, you will find a guide to which plants, vines, scrubs, and tree material are native to New Jersey. 



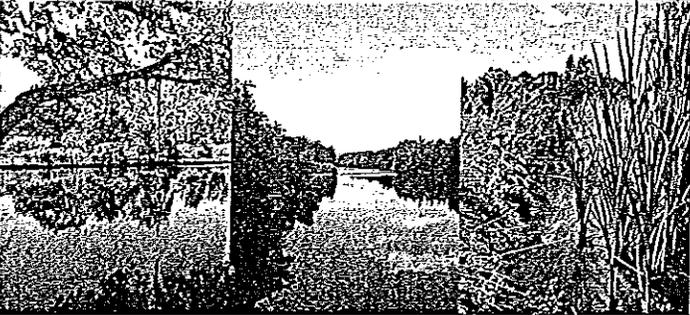
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CACIWC news, continued from page 2

wetlands membership surveys received to date. Your responses to this survey will make valuable contributions to the development of our new strategic plan. If you have not yet done so *please complete and mail in your survey* that can be located on our website: www.caciwc.org.

4. The board is continuing to receive resumes from commission members and other individuals who are interested in filling our existing CACIWC board vacancies (please see the list in this issue of *The Habitat* and on www.caciwc.org). The CACIWC bylaws specify that any past or present member of Connecticut conservation or inland wetlands commissions or their agent are eligible serve as a county representative or alternate. In addition, our 2012 bylaws amendments included the creation of several *alternate at large* positions that are not restricted to a specific county. This amendment will allow us to recruit well qualified directors from areas whose county and alternate county representatives are already filled. We hope that you will submit your name to us at board@caciwc.org if you are interested in serving as one of our vacant county representative, alternate county representatives or in one of the new alternate at large representative positions.

Please do not hesitate to contact us via email at board@caciwc.org if you have questions or comments on any of the above items or if you have other questions of your board of directors. We'll see you at our Annual Meeting and Environmental Conference!

~ Alan J. Siniscalchi, President

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Wildlife Entrapment from Erosion Control Material

Issue: Wildlife mortality and entrapment from plastic netting used in Erosion Control Matting (ECM) products has been found to entangle wildlife, including reptiles, amphibians, birds, and small mammals.

Key Points:

- A variety of manufactured ECM products may be used during construction projects to temporarily protect soil from erosion and facilitate establishment of vegetation ("erosion control"), or to trap eroded sediment and retain it onsite ("sediment control"). However, the environmental protection provided by certain erosion control products may have unintended consequences.
- Several of these products commonly contain plastic netting or mesh and have been found to entangle wildlife, including reptiles, amphibians, birds, and small mammals and the mortality of entangled individuals has been documented.
- Temporary erosion and sediment control products are designed to degrade after a period of time. However, several temporary erosion and sediment control products are commonly left in place permanently, particularly when used with seeding because the new vegetation grows up through the netting.
- When plastic netting does degrade, plastic fragments may be blown or washed into waterways creating additional hazards to wildlife.
- Acceptable, cost effective biodegradable products exist that may fulfill erosion control functions and do not persist in the environment and certain management practices can reduce the need for non-biodegradable products.
- Vermont, Washington and Ontario, Canada have cautioned, curtailed or prohibited the use of non-biodegradable ECM due to risk and mortality to species including amphibians and reptiles, birds, other small mammals.
- Additional knowledge is needed on species risk, entanglement/entrapment, and mortality on National Forest System and other public lands to inform decision makers on the scope and severity of the issue and applicable alternatives.

Background:

Erosion Control Matting, also known as mulch control netting, erosion control blanket, landscape mesh or netting, is routinely used to stabilize seed and soil in road, stream, or sod projects. However, some ECM products contain a plastic monofilament mesh (same material as fishing line) and pose risks to several wildlife species. Nylon mesh netting of 1" square or more is often embedded in erosion control materials and has been exhibited to entangle wildlife, including mammals, birds, fish, reptiles, and amphibians. It is believed that snakes suffer the highest rate of mortality as a result of entanglement with ECM containing monofilament mesh as snakes are unable to move backwards.

Contact: Anne Zimmermann, Director, Watershed, Fish, Wildlife, Air & Rare Plants, 202-205-1671

Editor's Note: Laura Magaraci, CACIWC Board of Directors, in response to the entrapment issue noted that she has witnessed a snake caught in erosion control netting that did not survive. She points out that netting can quickly stabilize soil so it will be important to identify and use alternative netting material that will biodegrade or break away to ensure this stabilization tool continues to be available. For alternative netting material go to www.coastal.ca.gov/nps, "Wildlife-Friendly Plastic-Free Netting in Erosion and Sediment Control Products", a Water Quality Fact Sheet, California Coastal Non-point Source Program. We thank Darcy Winther for alerting CACIWC to this issue and providing the information cited. ♡

Free Book to Commissions

Bringing Nature Home,
by Doug Tallamy.
See page 12.



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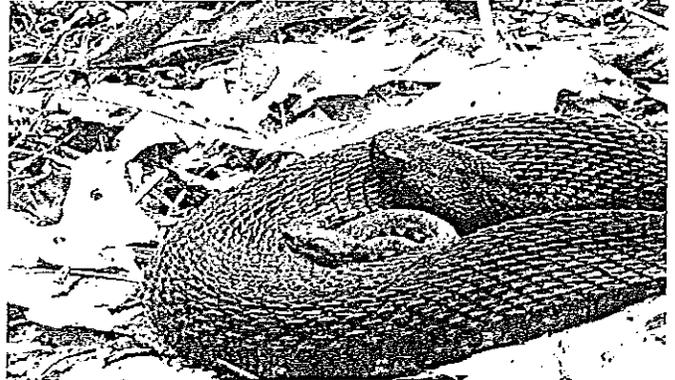
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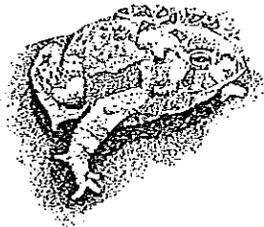
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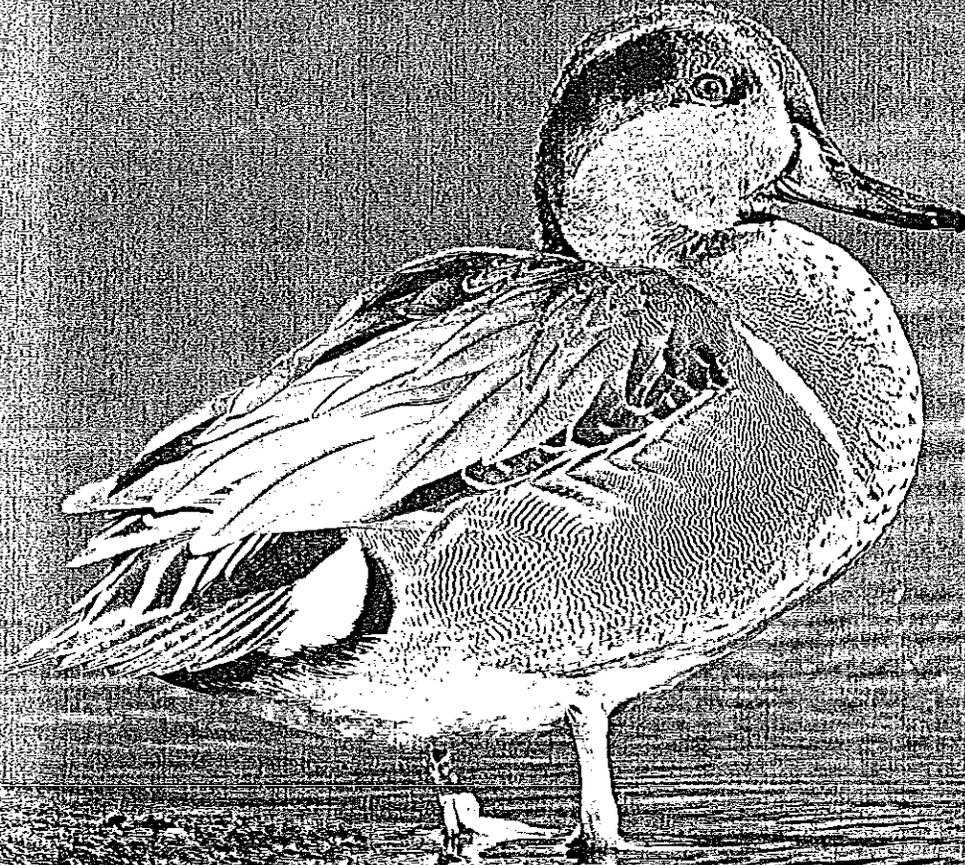
CT DEEP'S WETLAND MANAGEMENT SECTION'S E-NEWSLETTER

The DEEP Inland Water Resources Division, Wetlands Management Section, has developed an e-Newsletter for municipal inland wetlands agencies. The newsletter will allow the Wetlands Management Section to provide timely announcements, updated guidance, and share information. Further, all e-Newsletters are archived and available on the Wetlands Management Section's e-Newsletter web page at: www.ct.gov/deep/inlandwetlands. To join the mailing list, or to unsubscribe, please use the link at the bottom of the e-Newsletter.

September/October 2013

Connecticut Wildlife

CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
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From the Director's Desk



I'll be the first to say it – I am the luckiest guy in the world, at least professionally. That is easy to say coming from someone who has a passion for wildlife and all things in nature, and is blessed with a highly-skilled and motivated staff. Every single person in the Connecticut Wildlife Division is driven by shared beliefs and values – we borrow our natural resources from future generations, we have a responsibility to return those resources in a better form than when they were received, and our highest service is to you, the public.

The way we fulfill our responsibility to future generations, including service to today's, is through applying scientific methods, listening to what the public believes, and implementing conservation measures that balance the competing interests and needs of an ever-varying public.

The process of listening, study, and action has produced tremendous successes, some of which have been so successful that new challenges abound. One of the most remarkable involves the burgeoning moose population. While moose on our landscape certainly enrich our lives, they present a new set of challenges.

So, it is easy to imagine why some might ask why wildlife biologists, who profess to care so much about animals, do the things they do. Take the recent experience with the moose that was euthanized alongside Route 72 in New Britain while rush hour traffic sped by. It seemed to some that DEEP staff didn't care at all. In keeping with our core beliefs, we take our responsibility as stewards of Connecticut's natural resources very seriously and our role in protecting the many animal species found in our state. When faced with a circumstance where a wild animal is posing a threat to public safety, we always try to resolve the situation in a way that does not cause harm to the animal. This means that, whenever possible, we try to assist a wild animal in moving away from populated areas and into areas with more suitable habitat.

The safety of Connecticut residents must come first, however, and DEEP Environmental Conservation Police Officers – who have great expertise and experience in dealing with wildlife situations – believed the moose in New Britain posed an imminent threat to the public's well being. This moose was very close to a major highway during rush hour traffic and had already been observed crossing that highway a few times. When DEEP officers arrived, the moose began moving down a very steep incline toward the highway. At that point, tranquilization and relocation were not an option. Tranquilizing drugs do not take effect immediately and, when shot with a dart, animals very often take off and run – meaning the moose would have likely run into heavy traffic. There was a very high probability of the moose being struck by a vehicle, resulting in injuries or death to the vehicle's occupants, as well as the moose. It should also be noted that tranquilizing a moose is often not successful as it is with other species. Given the size and physiological makeup of moose, tranquilization stresses these animals, often causing them to overheat and suffer a slow death. Under the circumstances, DEEP officers made the difficult but necessary decision to euthanize the moose.

In the end, each of us comes to this place from a different path (you've already heard much about mine). All of us, from conservation officer to supervisor and from clerical to senior administrator, share in these beliefs, and we play an important part in putting those beliefs into action. Whether changing the hydraulic fluid in an amphibious excavator, answering a telephone call from an exasperated homeowner, placing a leg band on an osprey chick, or euthanizing an amazing animal, each and every person plays a vital role.

Rick Jacobson, DEEP Wildlife Division Director

Cover:

DEEP was recently awarded a grant through the North American Wetlands Conservation Act to protect and restore coastal habitats. These efforts will benefit green-winged teal and other waterfowl (see page 6).

Photo courtesy of Paul J. Fusco

Connecticut Wildlife

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Purple Martin Research Continues

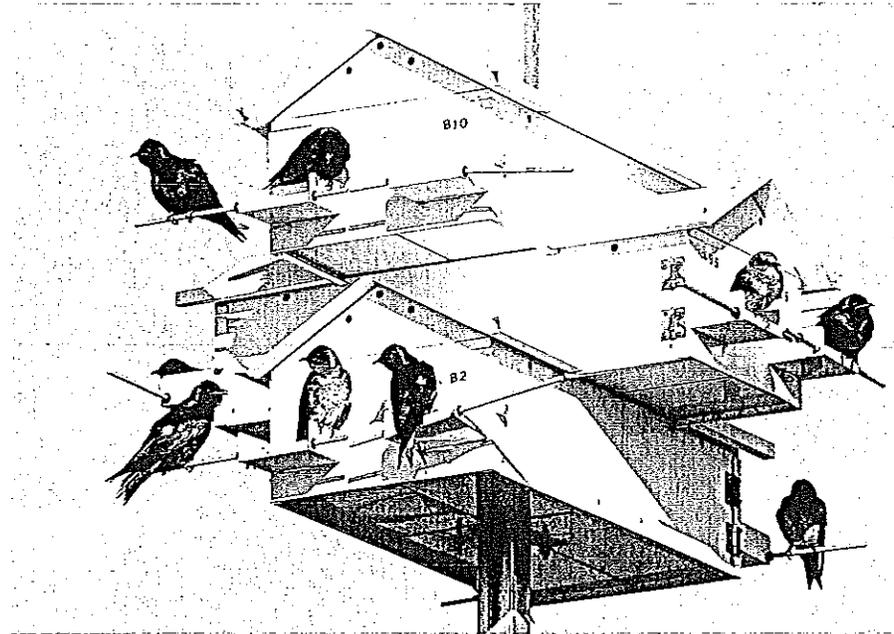
Written by Geoff Krukar, DEEP Wildlife Division

Purple martin chicks from throughout Connecticut were fitted with colored leg-bands this past summer as part of an ongoing research project investigating dispersal patterns of second year birds. Adult martins are believed to return to the same breeding locations year after year, but young martins returning from their first winter in South America are more likely to find new locations for nesting. By banding chicks with a unique color for each colony, future sightings will yield insight into how they are spreading out across the state. This information should help with strategic placement of additional martin housing to create new colonies and also increase the population of this state-threatened species.

The project, now in its third year, has steadily increased in size and effort. In 2011, 541 birds were banded at six colony locations. Those numbers jumped to 16 colonies and 904 chicks in 2012 and up to 18 colonies and 990 chicks in 2013. Not all of the same colonies were banded every year. Several of the smaller sites could not consistently attract martin pairs or produce chicks. Additionally, one of the larger, privately-owned colonies was not banded this year because of access restrictions. In total, 22 colonies have been involved with banding efforts for at least one of the three years. Only five of the colonies (23%) have been involved all three years. Eight sites were included two of the three years, and nine sites (41%) have only been involved once.

Colony size has been highly variable across the state. This year, a new colony in northwestern Connecticut only produced three chicks, while another well-established site along the coast had over 200 juveniles. The average number of chicks banded per colony in 2013 (55) was similar to last year (57). This slight drop is likely due to some chicks being either too old or too young to band when the colonies were visited. A wide span in nesting times, combined with a condensed banding season, made it impossible to band every chick.

As this project continues to gain momentum, the goal is to have all actively managed colonies in Connecticut involved. When the project began in 2011, it was limited to four coastal and two inland colonies in western and central Connecticut. Now, 13 coastal colonies from Greenwich to Stonington and nine inland colonies, including sites on both sides of the state,

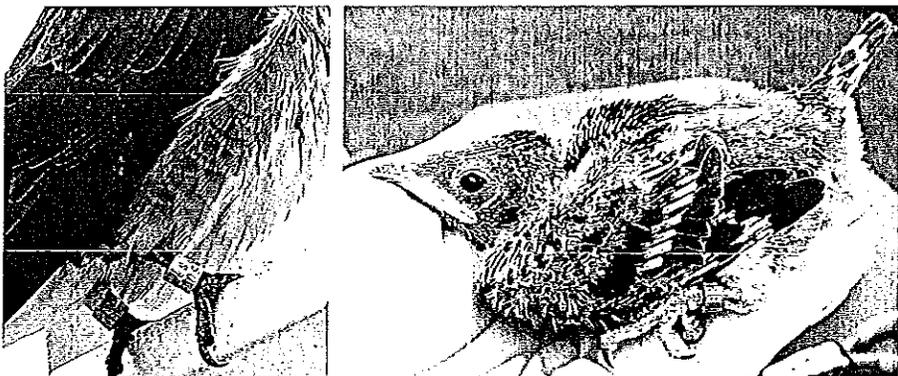


Purple martins nest in special man-made houses at various colonies located throughout Connecticut.

are participating in this study. With more color-banded birds on the landscape, it is more likely that they will be observed. So far, approximately 50 birds have been spotted and reported to the Wildlife Division. The early results reveal an interesting pattern. The vast majority of birds that were reported either returned to their natal colonies or were found at another established colony less than 11 miles from their natal site. The general trend seems to be that second year birds stay close to home. However, there are always exceptions. Some birds relocated to colonies farther away, either in Connecticut or other states. Two birds banded along the Connecticut coast in 2012 joined a colony in Cold Springs, New

York, successfully raising young this year. Another banded at Connecticut Audubon's Milford Coastal Center relocated to Mashpee, Massachusetts.

The success of this project is highly dependent on public participation in reporting sightings of color banded birds. Purple martins typically arrive in Connecticut in early April and stay until late August. Sightings can be reported to Geoffrey.Krukar@ct.gov or 860-675-8130. Key information to report is the date, location, and color or colors of bands. For more information about this project and to receive updates, please visit the Wildlife Division's Facebook page at www.Facebook.com/CTFishandWildlife.



The color bands on these two young martins denote the location of their natal colonies in Guilford (left) and Kent (right).

P. J. FUSCO

LEFT: T. SHAW, RIGHT: L. DOSS / DEEP WILDLIFE

Chimney Swift Roost Monitoring Begins to Reveal Patterns

Written by Shannon Kearney-McGee, DEEP Wildlife Division

Chimney swifts, as their name implies, are birds that prefer to use our chimneys to seek shelter overnight and also raise their young. They historically nested in large dead hollow trees, but have been nesting in chimneys since the mid-eighteenth century. These birds migrate at least 3,000 miles each year from the Amazon basin to spend their summers in eastern North America, including Connecticut.

Chimney swift (*Chaetura pelagic*) populations have been declining significantly at rates that rival many other birds of high conservation concern. Globally, the chimney swift is listed as “near threatened,” based on a population decline of over 50% observed since 1966. The United States’ breeding population has declined by 53% since 1966, with the decline accelerating between 1980-2008. The species’ decline has been very pronounced in the northern ranges, with a 90% decline of the Canadian population of chimney swifts between 1966 and 2008.

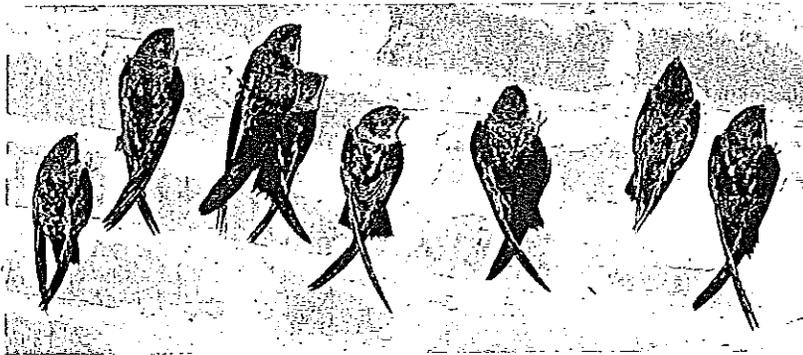
Despite these large declines,



Master Wildlife Conservationists Judy Grund (2nd from left) and Michael Delaney (far right) joined by Stephen Grund and Achey Jacob at Farmington High School to count and enjoy the chimney swifts returning to roost.

T. DELANEY / DEEP-WILDLIFE

P. J. FUSCO / MOUNT VERNON SONGBIRD SANCTUARY



Chimney Swift Roost Counts, 2013

Roost Location	Max 2013 (as of 9/30)	Max Count (Year)	Classification
Broad Brook	286	408 (2012)	Fall Migration
Falls Village	441	1,800 (2011)	Fall Migration
Farmington	476	476 (2013)	Breeding Season
Hartford	12	800 (2012)	Fall Migration
Meriden	537	755 (2012)	Breeding Season
New Hartford	112	183 (2012)	Breeding Season
Oxford	79	226 (2011)	Breeding Season
Simsbury	402	313 (2011)	Both
Willimantic	926	1,000 (2011)	Breeding Season
Woodbury	293	293 (2013)	Breeding Season
Woodbury #2	795	795 (2013)	Fall Migration (new in 2013)

chimney swifts can still be seen almost everywhere across Connecticut, which is why our state provides the perfect opportunity to study and monitor these birds. For the past three years, the Wildlife Division has coordinated with the UConn Ornithology Lab and citizen scientists to track the numbers of swifts roosting overnight in larger chimneys around the state. These roosting colonies are not nesting colonies, but instead are groups of birds gathering to rest during migration and keep warm during cool summer evenings. Nesting chimneys can be distinguished from roosting chimneys because typically only one pair will be seen entering and leaving a nesting chimney, compared to numerous birds going into and out of a roost. Nesting chimneys are usually smaller than roosting chimneys, and are the typical “fireplace chimney.” Roosting chimneys in Connecticut are usually 2.5 to three feet in diameter, and would usually be at a town hall, church, or school building.

By monitoring chimney swift roosts, the Wildlife Division can better track population numbers, as well as determine if our local swifts are successfully raising young. Division staff and citizen scientist volunteers have been regularly counting birds at roosts. At the same time, “swift-lords” (homeowners with nesting chimneys) are

Chimney Swifts – Unique Little Birds that Are Often “Underlooked!”

Roosting chimney swift colonies are among the most entertaining bird sighting events you can experience in Connecticut. About 20 minutes before sunset, chimney swifts from around the area will begin to congregate in swirling, “chittering” groups above the roost chimney. Groups of birds can be in the tens or hundreds. Swifts will continue to circle, dive, and chase each other; disappear into thin air; return as quickly as they disappeared; fly in formation; and so on and so forth – like little fighter jets – until about 10 minutes after sunset when they will pile and literally flip over into the chimney, like kids racing for the door at the end of school. This will happen on a nightly basis from mid-May until August at many buildings around Connecticut. What is more amazing is that it may be happening in your neighborhood right above your head, and you never even realized it! Chimney swifts are small, dusky birds that resemble flying cigars. They rarely fly below roof or tree canopy height and can easily be missed if you don’t look up! When you are out and around your town, listen for the “chittering” of the swifts high up and look toward the sky to catch the best air show in town!



tracking nesting progress and reporting their observations to the Wildlife Division.

After this third year of intensive roost monitoring, with concurrent information from local swiftlords, patterns of local roost use are becoming apparent. Observing roosts consistently from May until September allows us to categorize them into different maximum use patterns. Some roosts have their highest counts during fall migration; others have their highest counts during spring and the breeding season but empty out as fall migration roosts are building; and some have high counts during all seasons. It has been particularly striking that we have seen roost patterns from year to year correspond to each other within two to three days. For example, birds completely emptied out of roosts on the same day or within the same week in Farmington, Willimantic, Woodbury, and Meriden. Likewise, bird numbers that remained small all summer grew during the same week at some of the “fall migration roosts” like Broad Brook and Falls Village.

Concurrent monitoring of nests and roosts is also beginning to reveal how roost counts may indicate nesting success. This past season, higher numbers of swifts were observed in roosting chimneys later in spring. At the same time, most swiftlords were reporting later nesting by their resident swifts. These observations demonstrated that birds were still in roosts and not in their nesting chimneys later in the season. Additionally, higher roost counts were detected in mid-June in both 2012 and 2013. These higher counts each followed a week of heavy rain and cool temperatures, and corresponded to reported nest failures from swiftlords. These correlations with roost numbers and nest activity may allow us to use change in expected patterns of roost counts as an index for swift nesting success.

Additionally, it has become apparent that chimneys should not be ruled out as possible swift roosting sites simply because they have not yet been used by swifts before. Chimneys that are primarily used as fall migration roosts can vary, and each year another large fall migration roost that has never been observed before is often discovered. For example, citizen scientist Russ Naylor discovered a second site in Woodbury that was used for the first time this year and hosted close to 800 swifts. It is important to identify these potential roost

Celebrating Swifts!

This past summer, the Wildlife Division launched a new Chimney Swift webpage on the DEEP website that combines all of the chimney swift resources into one location: www.ct.gov/deep/chimneyswift. You can find updated information about our monitoring, research, partnerships, events, and educational resources.

The webpage is highlighted by an illustration created by Master Wildlife Conservationist Judy Grund, which depicts the chimney swifts as they descend into the chimney at the Willimantic Town Hall. This image has been incorporated into a poster that can be displayed around the state at chimney swift roosts. The webpage also contains details on the “Swift Conservation through Schools” program, which targets first grade students at schools with chimneys that serve as important roosting sites for swifts. Contact Shannon Kearney-McGee (shannon.kearney@ct.gov) if you would like a poster for your chimney swift roost site, or if you are interested in becoming involved with Swift Conservation through Schools.

sites as part of our conservation effort for these birds because we are not yet able to predict which roost they may choose to use in a particular year.

The Wildlife Division is asking residents to report any chimney swift roosts they find to Shannon Kearney-McGee of the DEEP Wildlife Division (shannon.kearney@ct.gov; 860-675-8130); include the location and number of swifts seen entering the chimney.



The DEEP Wildlife Division’s Chimney Swift Project is funded by State Wildlife Grants and the Connecticut Endangered Species/Wildlife Income Tax Check-off Program



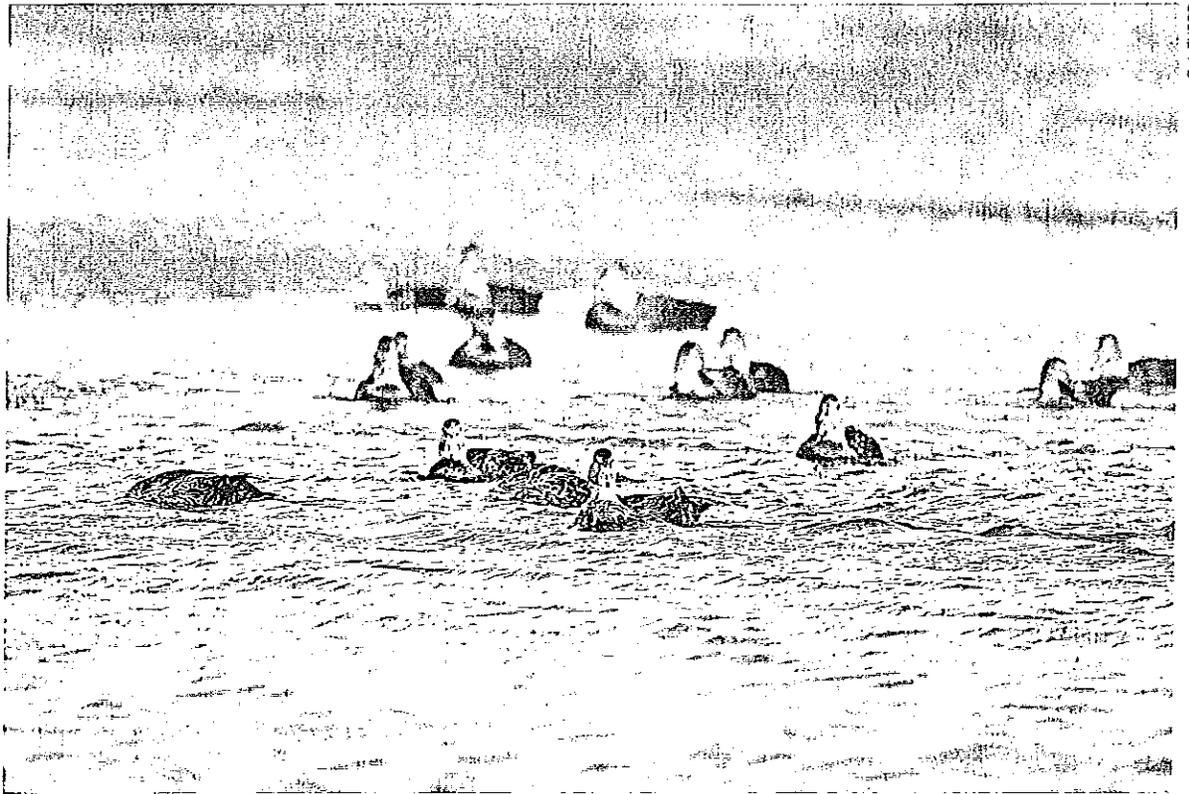
DEEP Receives Federal Grant to Restore Coastal Habitats

Written by Min Huang, DEEP Wildlife Division

Connecticut DEEP was recently awarded a \$985,000 grant from the U.S. Fish and Wildlife Service (USFWS) through the North American Wetlands Conservation Act (NAWCA) to protect, through acquisition, three different parcels totaling 82 acres of critical coastal habitat and to restore 60 acres of saltmarsh. The North American Wetlands Conservation Act of 1989 provides matching grants to organizations and individuals who have developed partnerships to carry out wetlands conservation projects in the United States, Canada, and Mexico for the benefit of

wetlands-associated migratory birds and other wildlife. The Act was passed, in part, to support activities under the North American Waterfowl Management Plan, an international agreement that provides a strategy for the long-term protection of wetlands and associated upland habitats needed by waterfowl and other migratory birds in North America. NAWCA is a competitive grants program that requires grant requests to be matched by partner contributions at no less than a 1-to-1 ratio.

The DEEP project competed with 34 other meaningful and important wetland projects across North America, and was chosen as one of 21 funded projects in the current grant cycle. The tipping point for this project being selected was that even though it involves low acreage compared to many of the other projects considered for funding, it brings together seven different partners and leverages over \$4.6 million. The project is a perfect example of how conservation, particularly in tight financial times, must embrace multiple partnerships and interests. Partners involved in this project are Ducks Unlimited, Trust for Public Land, The Nature Conservancy, Denni-



American black ducks will benefit from the wetland restoration activities that the North American Wetlands Conservation Act grant will fund.

son Pequotsepos Nature Center, Town of Tolland, Town of Branford, and Branford Land Trust.

The project area and immediate offshore environment regularly harbor up to 20% of Connecticut's wintering waterfowl population. Connecticut is one of the most densely populated states in the nation, with some of the highest coastal property values, making conservation of remaining coastal wetlands very challenging. Over 90% of the coastline in our state is already developed. In spite of this high rate of development, the state has globally significant breeding and wintering populations of many highest-priority species of wetland-dependent birds, such as the saltmarsh sparrow (a species of special concern), the endangered roseate tern, and American black duck. The importance of the project area to those species and over 60 other Greatest Conservation Need (GCN) migratory bird species makes it a critically important conservation project. The project will protect several currently unprotected parcels remaining in important wetland complexes and restore degraded parts of the most important wetlands.

Restoration work to be conducted under a project planned for Silver Sands State Park in Milford will increase interior tidal flow in the marsh habitat, control invasive phragmites, restore native vegetation, and provide source reduction for mosquito control, with a concomitant reduction or elimination in chemical pesticide applications. All of these efforts combined will result in the restoration and enhancement of resting, feeding, and breeding areas for fish and wildlife species. DEEP's Wetland Restoration and Mosquito Management (WHAMM) Program is slated to begin this project in April 2014. This restoration also is part of an ongoing large research project to assess the effects of saltmarsh restoration on wintering black duck energetics.

The acquisition and subsequent protection of two coastal saltmarsh parcels, one in Branford and the other in Milford, will not only provide critical habitat for migratory birds, but the upland elevations in both parcels will allow for marsh migration as sea levels rise. Over the last century, the sea level has risen approximately two millimeters per year. However, most projections indicate that sea level rise in Long Island

P. J. FUSCO

Sound and the northeastern United States as a whole is expected to be of a greater magnitude and more accelerated relative to other systems on the Atlantic Coast.

The acquisition and protection of 34 acres of early successional (shrubland) habitat in Mystic, along with continued habitat management that favors this critical habitat, will benefit the state-listed brown thrasher, yellow breasted chat, and many other shrubland birds – 80% of which are declining in Connecticut. This parcel is the last undeveloped property along the Mystic River in southeastern Connecticut.

The NAWCA Program has benefitted wetland habitats elsewhere in Connecticut. In addition to the current grant, the Wildlife Division has received three separate NAWCA small grants since 2004, totaling over \$160,000 in grant

money. This grant money was leveraged with over \$150,000 in Connecticut Duck Stamp funds and \$100,000 in other funds

to conduct freshwater wetland restoration projects in Natchaug State Forest in Eastford and Charter Marsh in Tolland.



Saltmarsh sparrows, due to their narrow nesting habitat requirements, are in danger of extirpation in the next 30 years if sea levels continue to rise and new high marsh habitat is not created. This grant will protect two areas that will allow for marsh migration in the face of sea level rise.

A Look Back at the 2012 Deer Hunting Season

Over the past 32 years, deer population size, human land use practices, and public attitudes toward wildlife have changed considerably. Today, hunters may legally take up to 14 deer per year if they participate in all hunting seasons, and additional deer may be taken in two of the 13 deer management zones. Historically, deer permit issuance increased consistently from 11,710 in 1975 to 61,333 in 1992. Since 1992, permit issuance has remained relatively stable, fluctuating between 60,316 and 64,032. In 2008, permit issuance increased to its highest point in history. The cause for this increase is unknown, but may be attributed to the poor economy, where harvesting one's own food may be a desirable means of obtaining quality protein. In 2009, permit issuance declined slightly, likely due to the increased cost of permits. From 2010 through 2012, permit issuance remained stable at levels similar to those 20 years ago. This may be due to increased costs and the ability to purchase permits at any time. Over the last 10 years, harvest in most deer management zones has remained relatively stable. However, with

Deer harvested during CT's regulated hunting seasons, 2011-2012

Season	Harvest 2011	Harvest 2012	3-year Average	
			Harvest (2009-2011)	% of Total 2012
Archery				
State Land	575	642	663	4.8%
Private Land	4,636	4,771	4,203	35.6%
Subtotal	5,211	5,413	4,866	40.3%
Muzzleloader				
State Land	164	115	162	0.9%
Private Land	959	843	859	6.3%
Subtotal	1,123	958	1,021	7.1%
Shotgun/Rifle				
State Land	639	778	629	5.8%
State Land	129	113	135	0.8%
Private Land	4,599	4,892	4,473	36.5%
Subtotal	5,367	5,783	5,236	43.1%
Landowner	1,196	1,267	1,161	9.4%
Total	12,897	13,421	12,285	100.0%

increased opportunities and incentives to harvest deer in urban deer management zones 11 and 12, the harvest has more than doubled, while roadkills have been

exhibiting a steady downward trend. Increased harvest efforts appear to have stabilized deer populations in many areas of the state.

Help “Slow the Spread” of the Emerald Ash Borer

Connecticut is working to slow the spread of the invasive, exotic emerald ash borer (EAB). If it takes longer for the insect to arrive in new locations, cities and towns will have more time to prepare. “Slowing the spread” increases the opportunity for effective controls to emerge, such as naturally-arising or introduced biological agents (insects or diseases) that attack EAB, or new management techniques to limit the growth and spread of the insect. Everyone can help with this important effort.

Homeowners

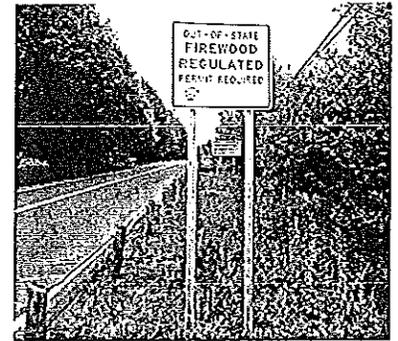
Homeowners who have ash trees on their properties are encouraged to know the signs of EAB. Unless the insect is known to be in the vicinity, preemptive removal of ash trees is not recommended. Healthy trees provide a great many environmental benefits, including contributing to the value of a property. Trees infested by EAB or in the vicinity of an EAB infestation (about 15 miles) can be effectively treated with a systemic insecticide.

Homeowners are encouraged to be aware of the health and condition of all of their trees. Should there be any questions regarding the health of trees or the presence of EAB, homeowners are encouraged to make use of services such as those provided by an arborist licensed by the State of Connecticut.

Property owners who wish to cut down an ash tree, or any hardwood tree for that matter, and make use of it as firewood should be aware of the regulations regarding the movement

of trees. Overall, ash is a small but significant component of the forests within the state, but it may be a major component of any individual woodland owner’s property. The wood from ash trees is considered to be valuable - as timber and firewood - and the various species of ash are important trees for wildlife.

Because of the value of wood from ash trees, woodland owners are cautioned to be careful regarding solicitations for the preemptive removal of ash trees from their land. Before selling trees, woodland owners are encouraged to seek the services of a CT DEEP Certified Forester. By state law, anyone in Connecticut who plans or designs the harvest of commercial forest products on behalf of a woodland owner, or who advertises or solicits to do that planning or designing, must be certified as a forester.



Signs near the state borders remind people that the movement of firewood across state lines is regulated and permits are needed.

DEEP Division of Forestry has a program of landowner assistance that is helpful in getting woodland owners “on the road” to good forest management. DEEP Service Foresters provide advice and assistance upon request to private woodland owners. This is an excellent starting point for those concerned about what to do regarding the ash on their property.

Woodland owners who plan to cut down hardwood trees, particularly ash trees, to use as firewood should be aware of the regulations regarding the movement of firewood. In particular, property owners should be aware of the requirement for documentation regarding the transport of firewood (i.e., the Self-issued Firewood Transportation Certificate).

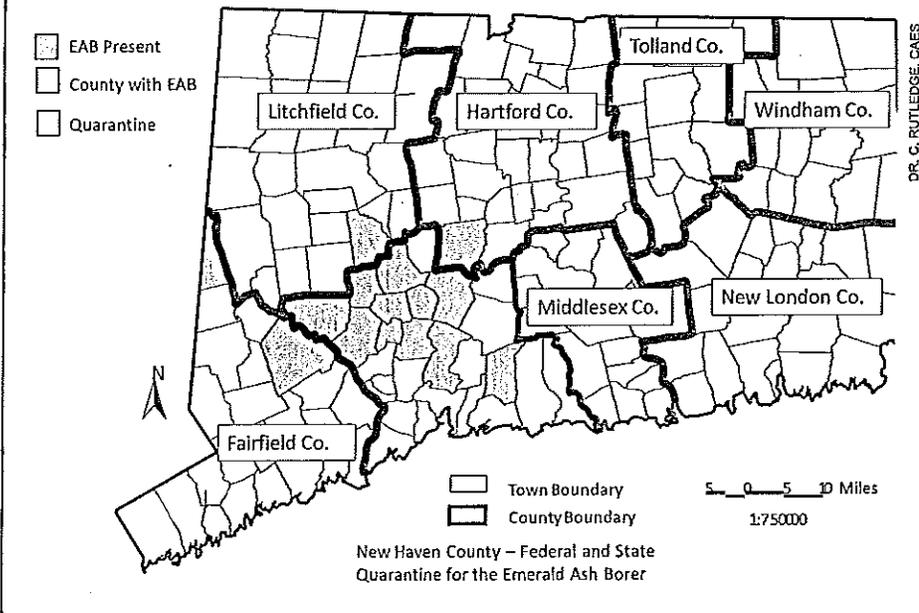
Users of Firewood

The movement of firewood is one of the primary means by which EAB and other invasive wood-boring insects are spread. For this reason, there has been an intensive effort to make firewood users aware of these invasive pests, and to take steps to

reduce the likelihood of moving the insect into new areas. By following some basic and common sense measures, people who use firewood can have a real impact.

The best single piece of advice regarding firewood is to not use firewood that has either come from outside the immediate vicinity (roughly 25 miles) or from an area known to be infested by invasive insect pests. If firewood from outside the immediate vicinity is to be used, then it should be treated in accordance with federally-mandated standards to ensure that it is not car-

Emerald Ash Borer in Connecticut, September 2013



of firewood. In particular, property owners are encouraged to be aware of the requirement for documentation regarding the transport of firewood. The easiest way to meet this requirement is through a Self-issued Firewood Transportation Certificate, which can be found on the DEEP website at www.ct.gov/deep/forestry.

Woodland Owners

Woodland owners are encouraged to be able to recognize signs of EAB, as well as to know how to identify individual ash

rying harmful insects or diseases. In certain situations, to be in compliance with federal and state requirements, this treatment is obligatory.

In direct response to EAB, the State of Connecticut has issued a regulation that all individuals who transport firewood must have documentation accompanying that firewood (i.e., the Self-issued Firewood Transportation Certificate).

Firewood Dealers

Because of the potential role that firewood could play in spreading EAB and other invasive insects, Connecticut has established specific responsibilities for those who sell firewood. These responsibilities include requiring that any firewood dealer know the geographic source of any firewood that he or she is selling, and that dealers know whether any firewood from out-of-state meets the requirements established by the USDA Animal and Plant Health Inspection Service and the Connecticut Agricultural Experiment Station.

Firewood dealers should especially be aware of the quarantine in place within Connecticut regarding the movement of firewood. This quarantine places severe restrictions on the movement of all hardwood firewood and other regulated articles, such as ash sawlogs, out of New Haven County. State regulations also require that all individuals who transport firewood must carry documentation regarding the source and destination of that firewood (a Self-issued Firewood Transportation Certificate).

In addition, firewood dealers can be a great help in "slowing the spread" by being an effective source of information for the public regarding invasive pests and their control.

For More Information

Further details regarding the emerald ash borer, movement of firewood, regulations, quarantines, and identifying ash trees are available on the DEEP (www.ct.gov/deep/forestry) and Connecticut Agricultural Experiment Station (www.ct.gov/caes) websites.

Bats and White-nose Syndrome: Updates

CT Receives USFWS Grant for Work on White-nose Syndrome

This past summer, the U.S. Fish and Wildlife Service (USFWS) awarded grants totaling \$950,694 to 28 states (including Connecticut) for white-nose syndrome (WNS) projects. State natural resource agencies will use the funds to support research, monitor bat populations, and detect and respond to white-nose syndrome, a disease that afflicts bats.

WNS has spread rapidly from one state in 2007 to 23 states and five Canadian provinces this year, and it continues to move westward. It is considered one of the most devastating diseases affecting wildlife in eastern North America. Best estimates indicate that WNS has killed more than 5.7 million bats.

The USFWS is leading a cooperative effort with federal and state agencies, tribes, researchers, universities, and other non-government organizations to research and manage the spread of WNS. Funding for grants was provided through the Endangered Species Recovery Program.

Additional information about WNS, the international disease investigation, and research can be found on the national WNS website at www.whitenose-syndrome.org. The site contains up-to-date information and resources from partners in the WNS response, current news, and links to social media.

U.S. Fish and Wildlife Service (www.fws.gov)

Deadly Bat Fungus Has a New Name

The dreaded fungus that has killed millions of North American bats has a new name. The white, cold-loving fungus that causes white-nose syndrome (WNS) and gave this devastating wildlife disease its name has been known since 2009 as *Geomyces destructans*. The U.S. Forest Service reports that additional genetic research by its scientists indicates the fungus should be classified within a different genus and will be called



P. J. FUSCO

The white, cold-loving fungus that causes white-nose syndrome (WNS) in bats was given a new scientific name after genetic research conducted by the U.S. Forest Service indicated the fungus should be classified within a different genus. The new name is *Pseudogymnoascus destructans* – or the more pronounceable *P. destructans*.

Pseudogymnoascus destructans – or the more pronounceable *P. destructans* (or just PD).

"This research represents more than just a name change," said Mylea Bayless, Bat Conservation International's director of conservation programs in the United States and Canada. "Understanding the evolutionary relationships between this fungus and its cousins in Europe and North America should help us narrow our search for solutions to WNS."

"This research increases our confidence that this disease-causing fungus is, in fact, an invasive species," Bayless said. "Its presence among bats in Europe, where it does not cause mass mortality, could suggest hope for bats suffering from this devastating wildlife disease. Time will tell."

Bat Conservation International (www.batcon.org)

Nesting Bald Eagles and Peregrine Falcons on the Rise

Written by Kate Moran, DEEP Wildlife Division

During spring and summer of 2013, the DEEP Wildlife Division, assisted by many dedicated volunteers, monitored the nesting activities of bald eagles and peregrine falcons throughout the state. Thirty-five pairs of the state-threatened bald eagle were documented this year. Of these 35 pairs, six exhibited territorial behavior but did not reproduce. Four nests failed, while the remaining 25 pairs successfully produced 41 chicks. This tops last year's totals of 26 active pairs, with 17 successful nests and 33 fledglings. This year, only one nest fledged three chicks, compared to 2012 when four nests fledged three chicks – a record for Connecticut. Over one-third of the productivity in 2012 can be attributed to those four nests, underscoring the importance of conservation and nest protection for bald eagles in Connecticut. Banding efforts by the Wildlife Division this year were limited to two nests where two eagle chicks were banded. Many thanks are due to the Bald Eagle Study Group of Connecticut for their years of voluntary contributions!

Peregrine falcon territories numbered 17 in the 2013 breeding season. Preliminary counts indicate that 14 chicks fledged from six different nesting sites. The status of eight nests remains uncertain. The well-known Travelers Tower falcons failed to produce any chicks after their eggs were destroyed in an April storm. No peregrine falcon chicks were banded this year. The Wildlife Division would like to thank the many volunteer peregrine falcon nest monitors for their time and efforts!



P. J. FUSCO (8)

This year, bald eagles nested and raised young in every Connecticut county but one (Tolland).

2013 Peregrine Falcon Nesting Season Results

County	Active Territories	Territorial Only	Failed Nests	Successful Nests	Unknown Status	No. Chicks
Fairfield	4	1			3	
Hartford	4		1	1	2	4
Middlesex	1			1		4
New Haven	4			3	1	5
New London	3	1		1	2	1
Total	17	2	1	6	8	14



2013 Bald Eagle Nesting Season Results

County	Active Territories	Territorial Only	Failed Nests	Successful Nests	No. Chicks
Fairfield	1			1	2
Hartford	9	1	2	6	9
Litchfield	6	1		5	8
Middlesex	5	1	1	3	5
New Haven	5	1		4	5
New London	5			5	10
Tolland	1	1			n/a
Windham	3	1	1	1	2
Total	35	6	4	25	41

Sherwood Island: First Connecticut State Park Purchased

Written by Alan Levere, State Parks Division

Albert M. Turner had been hired as the first State Park employee to assess the geography of Connecticut for potential park locations. It took Turner most of the summer of 1914 to complete his statewide inventory of potential park sites. During that time, the new Commissioners were extremely anxious to obtain some real estate and begin building an inventory of park properties.

On the one hand, Mount Tom had been given to the State in 1911, specifically to be used as a state park. Unfortunately, at that time there was no State Park Commission to receive the gift, so the Mount Tom property was held by the office of the State Forest Commission.

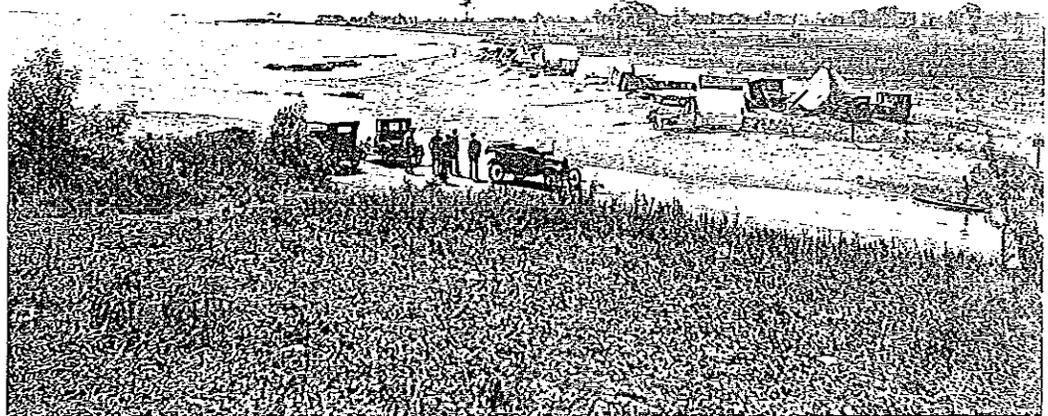
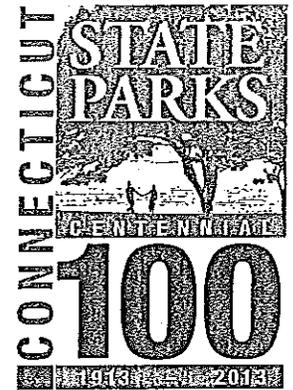
Ideas for the first park acquisition were wide ranging. Because of contacts, friendships, and a general awareness of availability, the Park Commissioners had promising leads: Selden Neck along the Connecticut River at Lyme; Charles Island off Milford; Mason's Island off Stonington; and the Eureka Mining land that encompassed the head of a "sort of sleeping giant" in Hamden. But, the reality was that any purchase they could hope to make was limited by the money they had to spend.

The original founding Act allotted the Parks Commission \$20,000 for land acquisitions and expenses for the first two years. Then, just like today, land values varied, depending on what society held as intrinsic value. Natural woodland may have been selling for \$5 to \$40 an acre, depending on the timber condition and proximity to market. Riverfront or lakefront had a value of \$300 per acre on average; more if the local agricultural value was high. Saltwater beach shorefront sold for \$15 to \$40 a linear foot, with buildable upland behind it valued at about \$6,500 an acre. With prices as they were, a single factor was readily apparent – the shoreline should be the first to be preserved because its value was high and escalating rapidly. Other lands were important, but the shoreline of Long Island Sound needed to become the fiscal priority.

Thus, in midsummer 1914, when a parcel of land destined for foreclosure became available on Sherwood Island in Westport, the Commission moved quickly to secure it. Sherwood Island was one of Field Secretary Albert Turner's original three shoreline locations, along with Bluff Point in Groton and Hammonasset Beach in Madison. The Park Commissioners held their July 1914 meeting in New Haven, which facilitated their travel to Westport for a field review of Sherwood Island. At the conclusion of that meeting, on Tuesday, July 7, the State Park Commission, "... voted to authorize the President to purchase,

at his discretion, a certain piece of land containing about four acres, located in the Town of Westport, which is about to be offered at public auction..." It would be a humble beginning.

On September 22, 1914, the deed was signed and acknowledged. Two months later, the transaction was officially recorded in the Town of Westport land records. The Sherwood parcel was not the perfect tract to begin with, because even though it did encompass saltwater shoreline and coastal marsh, it had no public access. But the acquisition was a solid start, a toe-hold on the future. Sherwood Island proved to encompass more land than originally thought, five acres instead of four, and the price was



State Park Commissioners look across Westport's New Creek at the first five-acre land purchase at Sherwood Island. Although it was the first park property, the landlocked parcel had no official access until 1932. Until that time, illegal park users crossed the creek and encamped on the beach at their convenience.

right – \$2,489, or just under \$498 per acre. Seven days later, on December 29, 1914, the 427-acre Hurd Park, along the Connecticut River in Haddam, was added. The wheels of the new State Park System were in motion.

The well-connected Park Commissioners kept their noses to the wind. Within 48 months and by the end of the First World War in November 1918, Connecticut had 15 state parks. However, much to the chagrin of Albert Turner, there was still no coastal saltwater access. It was time for Turner to rock the proverbial boat and, in so doing, he changed the nature of Connecticut's State Parks forever. Learn more on the Connecticut State Park Centennial webpage at www.ct.gov/deep/StateParks100.

Aerial Master - The Merlin

Article and photography by Paul Fusco, DEEP Wildlife Division

One of Connecticut's lesser known hawks is the merlin (*Falco columbarius*), a small falcon similar to the American kestrel. In Connecticut, it is considered to be a passage migrant. Merlins are most commonly seen during the fall migration, with peak movement between late September and the first half of October. They are most often found along the shore, as they follow the coastline south. Some merlins may linger and occasionally a small number may overwinter in the state.

Florida south to northern South America. Some birds also winter in the western states and along the Atlantic coast.

Like other falcons, merlins favor open country habitats. In the north, they are found in willow/birch scrub and open boreal/taiga forest. Their range extends as far north as the treeless limit where tundra replaces the boreal forest. In other parts of their range and during migration, they use marshland, coastal, open forest, prairie, and river valley habitats. Merlins breed in areas of open boreal forest

and tundra in the north, and in northern prairie and mountain habitats in the west. They favor low to medium height vegetation with a few scattered taller trees that they can use as hunting perches.

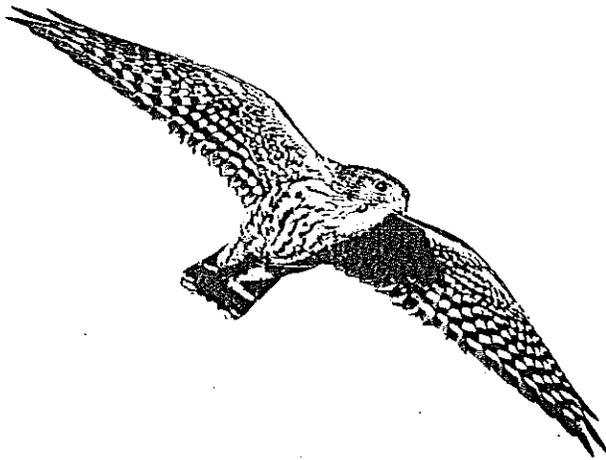
Three distinct races of merlin are separated geographically in North America. The *suckleyi* subspecies in the Pacific northwest, also known as black merlin, is the darkest. The *richardsoni* subspecies, which inhabits the prairie states and provinces, is the palest. The nominate race, *columbarius*, or taiga merlin, is the typical merlin that occurs in Connecticut.

Behavior

Although merlins nest in trees, they do not build their own nest. Instead, they take over old, abandoned nests built by magpies, crows, or ravens. Females lay four or five rusty brown eggs. Incubation is done primarily by the female, leaving the male to do most of the hunting. The eggs hatch after 28 to 32 days, and the young fledge after about 30 days.

Merlins are described as being tireless, fearless, pugnacious, and aggressive. They are known to boldly attack and harass birds that are much larger than themselves. Flying with steady rapid wing beats, their flight is fast, powerful, and direct. The birds seldom soar like most other raptors.

When in pursuit, merlins are relentless. They will often exhaust and over-



In flight, merlins show the long pointed wings and long tail of a falcon. Their profile is sleek and streamlined.

Merlins are small, dark raptors with the typical long, pointed wings and streamlined profile of a falcon. They have a longish tail with thick, dark bands. Males are blue-gray above, while females are brownish. Both adults and juveniles are boldly streaked on the underside. Merlins are distinguished from other falcons by the lack of well-defined, dark mustached markings on the face.

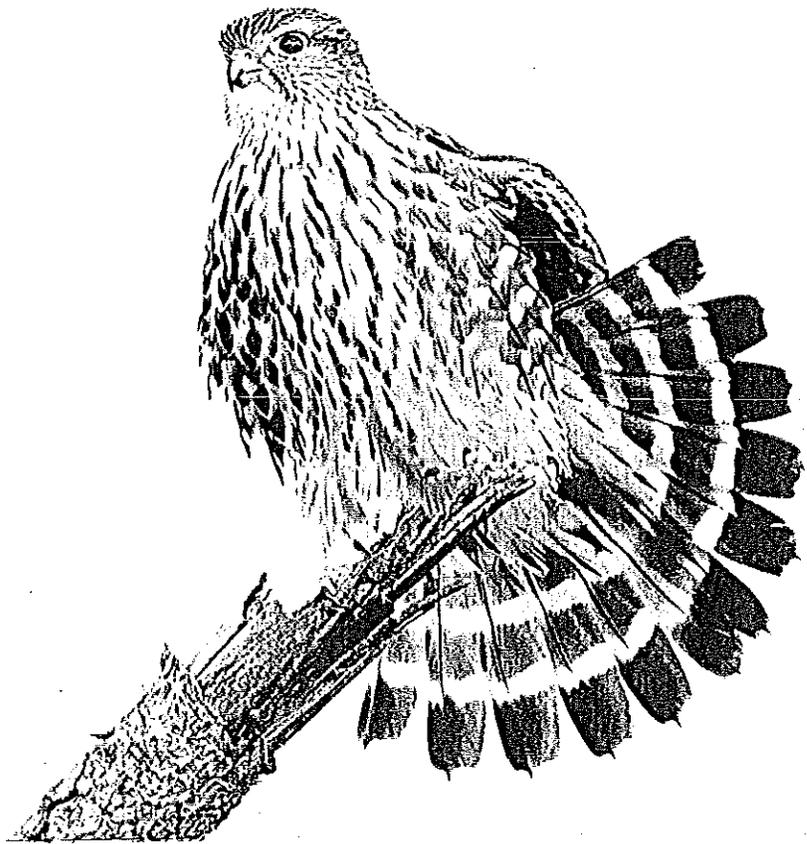
Merlins are circumpolar. Their breeding range includes the northern latitudes of North America, Europe, and Asia. In North America, they breed from Alaska south to Oregon and Idaho; east across Canada to Labrador; and south to northern New England. Most merlins spend the winter from the Gulf of Mexico and



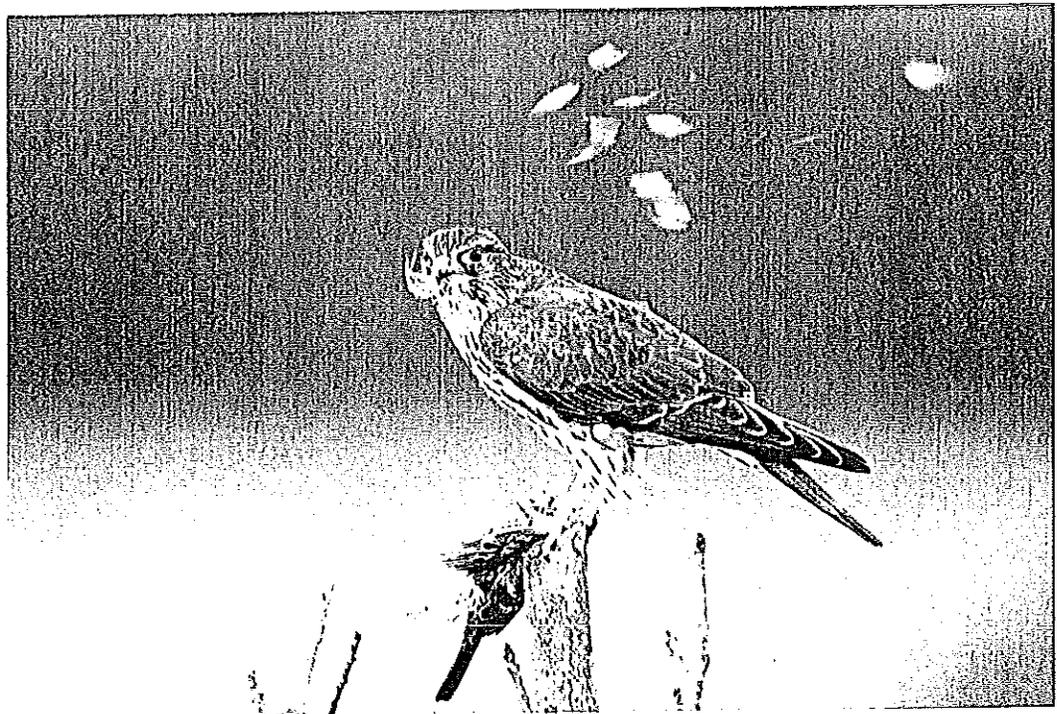
take birds in the air after a long chase. Sometimes hunting from a tall conspicuous perch, a merlin will fly down to take prey in a quick burst of speed. They also hunt by flying fast and low to the ground in an attempt to surprise prey, which is caught in flight. Prey consists almost entirely of small birds, including sparrows, waxwings, pipits, larks, and shorebirds. Merlins will take whatever is most common in the area. They also will occasionally take small mammals, especially bats in flight.

Conservation

In the mid-1900s, populations of this top predator were affected by organochlorine pesticides, which caused eggshell thinning and subsequent nest failures. Once DDT and other similar chemical pesticides were restricted, the merlin population rebounded. Today, the population is generally considered stable or, in some parts of their range, increasing. A range expansion began to occur in the 1960s in the prairie region when merlins were found occupying urban breeding habitats. In the Northeast, merlins have expanded their breeding range over the past 20 years into northern New England and upstate New York. Most recently, the species has begun to nest in Massachusetts. It seems to be only a matter of time before this bold falcon will be documented as a breeding species in Connecticut.



Bold streaking on the underside and a lack of bold dark mustachial marks are traits of the merlin. This one is also showing off its thick, dark tail bands.



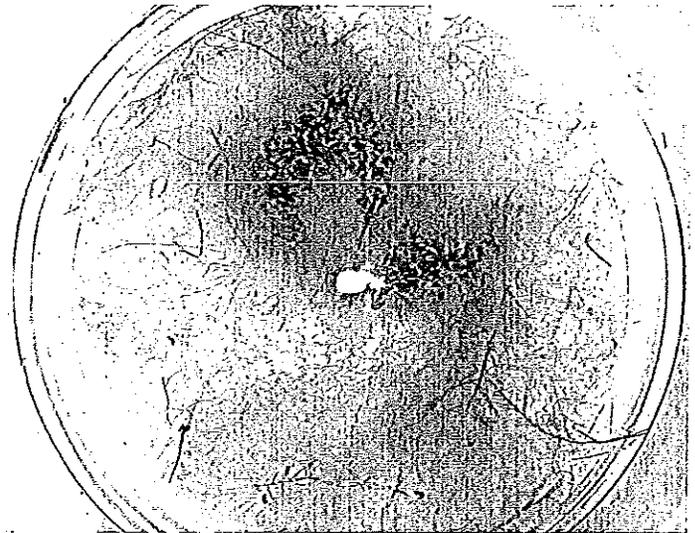
Merlins were formerly known as pigeon hawks because it was thought they preyed on pigeons. However, sparrows and other small birds are their more frequent prey. This merlin has just caught a song sparrow.

A New Weed in Our Marine Garden

Written by Penny Howell and Deb Pacileo, DEEP Marine Fisheries Division

Many people who ventured into Long Island Sound this past spring and summer found their boat lines or lobster traps entangled in a new seaweed named *Heterosiphonia japonica*. This ordinary looking red alga, whose only common name is 'HJ,' first showed up off Rhode Island in 2007, having spread from the northwestern Pacific by way of the entire European coastline from Norway to Italy in the 1980s and 1990s. HJ has the nifty habit of growing in early spring on a variety of surfaces, including other algae. In summer, it breaks up into small fragments which drift around onto new attachments, where the algae grows and reproduces with remarkable speed and volume. While drifting around, HJ fragments entangle just about everything. They have an array of hooked branches that tangle better and faster than snagged fishing line. Nets, ropes, and moorings are fouled and submerged structures are engulfed. Large mats of HJ, often mixed with other seaweed species, have washed up on beaches from Stonington to Stratford, smothering much of what they land on.

The CT DEEP Long Island Sound Trawl Survey encountered HJ in the eastern Sound in spring 2012, but by spring 2013, Survey catches of the alga had spread westward to waters off Bridgeport and Port Jefferson, New York. In 2012, a little more than a third of all spring samples had HJ tangled in the net, increasing in spring 2013 to almost half the samples, at all depths and over all bottom sediment types that the Survey encounters. The total weight of the catch for both years adds up to over 1,100 kg (2,240 pounds). Some catches were so large that they nearly halted



Heterosiphonia japonica, the latest sea 'weed' to find a home in Long Island Sound, looks delicate and feathery as a single branch in a dish of water, but in large quantities becomes a monstrous red mess that is very difficult to clean off screens, fishing nets, and lines.

the 50-foot research boat's forward movement. Other facilities on the Sound, such as Millstone Power Station in Waterford, have also had to deal with large quantities of HJ.

The invasion has begun, and it will be difficult to stop because the species is completely adaptable to a broad range of temperatures (freezing to bath water) and salinities (brackish to full seawater).

HJ is the latest alien species to invade our shores in recent years. This list also includes the Asian shore crab, New Zealand mud snail, and Chinese mitten crab. Oceans cover over 70% of our planet's surface, so it should be no surprise that marine organisms can spread easily, often with the help of commercial and recreational boat traffic. Most newcomers do not survive in any great numbers, but those species that can adapt to a wide range of habitats and conditions while growing and reproducing quickly will often be nature's winners. When new



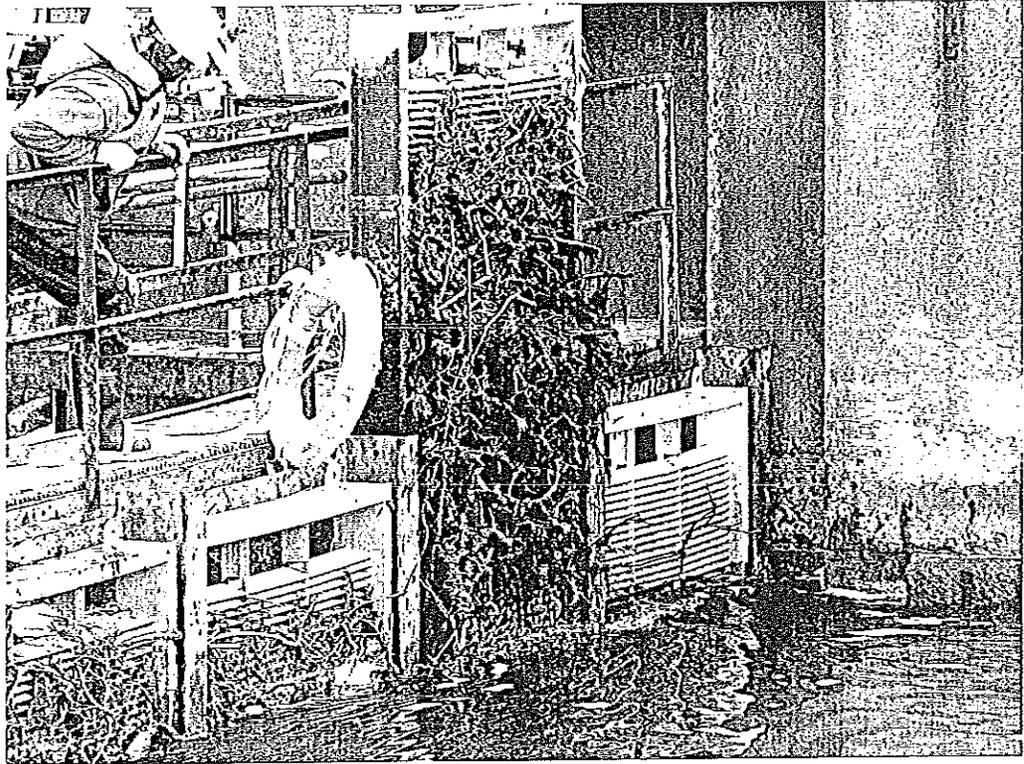
Huge catches of HJ (up to 246 kg or 542 lbs.) in June 2013 bogged down sampling nets, making it nearly impossible to clear so that nets could be towed properly.

CT DEEP LIS TRAWL SURVEY

CT DEEP LIS TRAWL SURVEY

species survive in a new area, they can increase local diversity, resulting in an ecosystem that may be more resilient to biological and physical disturbance. This is because changes, even large ones due to storms, pollution, or global warming, have less effect when distributed among many species with differing strengths and weaknesses. However, the danger that separates new colonizing species from true 'invasives' is that aggressive species can overwhelm the local flora and fauna and, in short order, greatly reduce rather than increase the number of species the ecosystem can support.

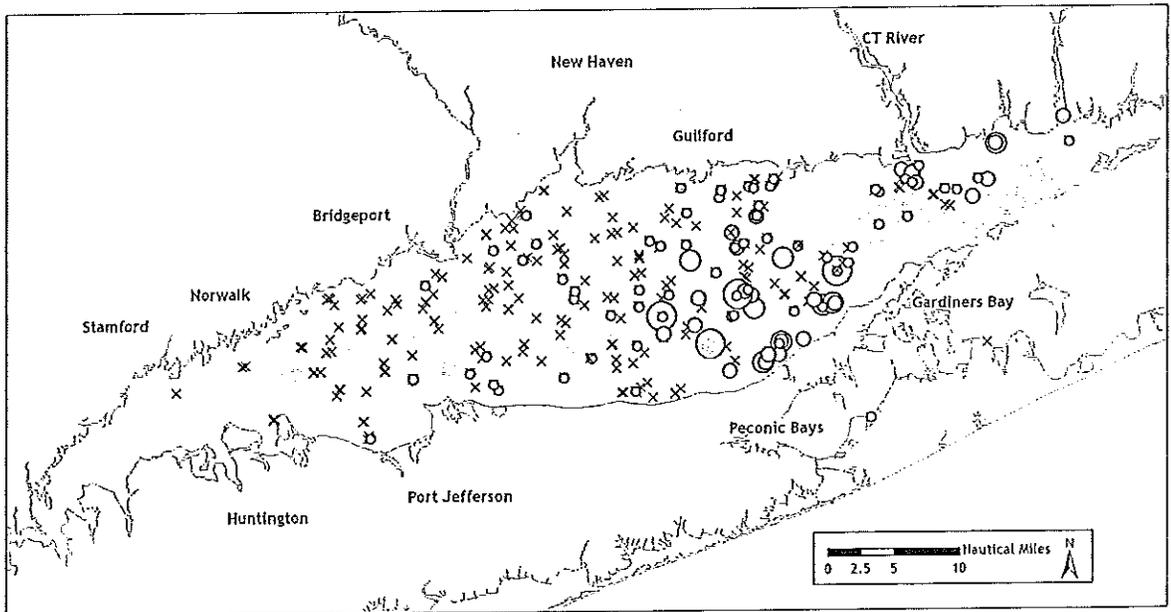
In the northwestern Pacific, where HJ originated, the alga is not particularly abundant. So, there is hope that the abundance of this species in the Sound will eventually be stabilized by predation or some other limiting factor. A small snail has been documented as a grazer on HJ, but it is feared that the snail's grazing habits may be contributing to the fragmentation and spread of this menace. A larger 'predator' is needed to more effectively keep the proliferation of HJ in check. The best way to limit the success of invasive species is to maintain high native biodiversity so that potential competitors and predators are plentiful. Fortunately, Long Island Sound has high biodiversity, where there are snails, crabs, and fish waiting to try out this new alga. The species that makes HJ a mealtime favorite will be the next winner.



J. FOERTCH, MILLSTONE ENVIRONMENTAL LAB, DOMINION NUCLEAR CT

In January 2013, large amounts of HJ were found at Millstone Power Station in Waterford and carried through the power plant's cooling water systems. Extensive maintenance was required to remove all of this material from the intake and discharge structures.

Distribution of Red Algae *Heterosiphonia japonica* (HSA)



CT DEEP Long Island Trawl Survey, spring 2012 and 2013 distribution map for invasive red alga, *Heterosiphonia japonica* (HJ)

Water is shaded by depth; shallower water is lighter blue while deeper water is darker blue.

Places where LIS Trawl Survey sampled but did not find HJ are marked with an "X."

HJ weights (kg) 2012

- 0.1 - 3.0
- 3.1 - 15.0
- 15.1 - 100.0
- 100.1 - 172.8

HJ weights (kg) 2013

- 0.1 - 3.0
- 3.1 - 15.0
- 15.1 - 100.0
- 100.1 - 245.8

CT DEEP MARINE FISHERIES DIVISION

More Projects for Housatonic River Settlement Chosen

Projects added in Watertown, Seymour, Milford, and Stratford

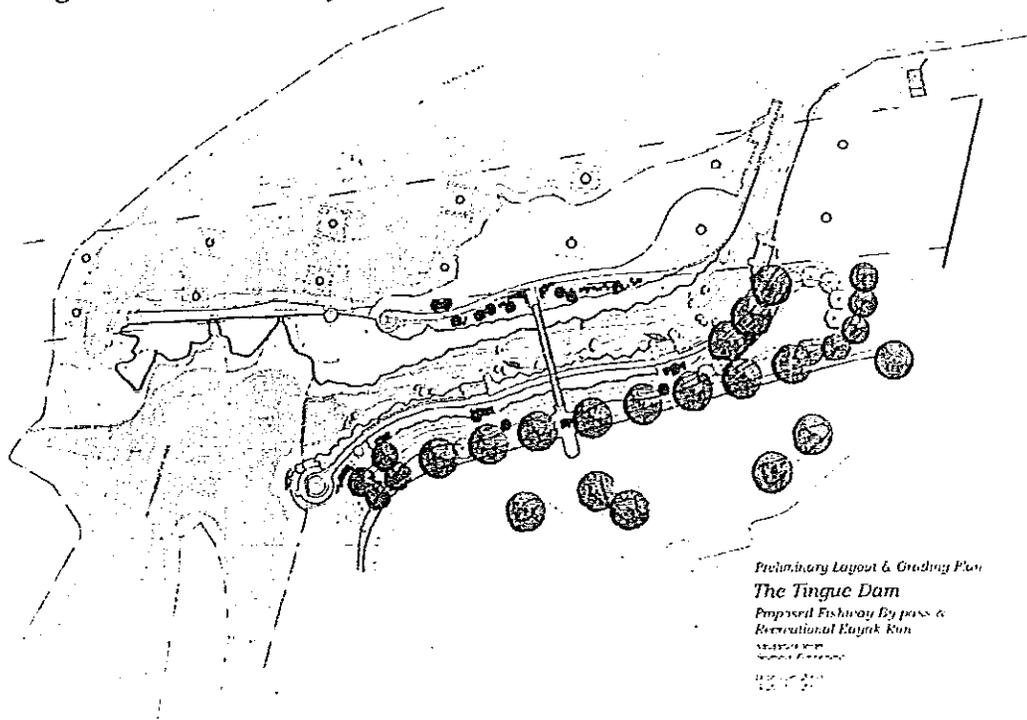
Environmental officials have chosen seven fish habitat and marsh restoration projects to fund with \$2 million from the 1999 Housatonic River settlement. The projects are outlined and evaluated in documents released in late August by DEEP, the U.S. Fish and Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration (NOAA). These documents can be viewed on the DEEP website at www.ct.gov/deep/naturalresources. A link also is provided on the federal Environmental Protection Agency's GE/Housatonic River website (www.epa.gov/region1/ge).

Previous projects have successfully restored natural resources and provided new recreational opportunities in the Housatonic watershed in Connecticut. Several of the new projects will increase habitat for migratory fish, such as river herring, through: 1) the removal of the Pinshop Dam in Watertown; 2)

an analysis of options for the Old Papermill Dam on the East Aspetuck River in New Milford; and 3) construction of a bypass channel to facilitate fish movement around the Tingue Dam on the Naugatuck River in Seymour. Several marsh restoration projects in Milford and Stratford are expected to improve estuarine wildlife habitat. Finally, an analysis of barriers to fish passage at road crossings will be conducted in the upper watershed to identify opportunities to improve stream connectivity through culvert replacement. These projects to improve wildlife habitat in the watershed are made possible through a collaboration with the Housatonic Valley Association, the Housatonic Fish and Game Club, state and federal agencies, and a local business.

Funding comes from a 1999 settlement with General Electric (GE) that included \$7.75 million for projects in Connecticut aimed at restoring, rehabilitating, or acquiring the equivalent

An Architect's Drawing of the Tingue Dam Fishway By-pass on the Naugatuck River in Seymour



In this architect's rendition of the Tingue Dam Fishway By-pass in Seymour, the Naugatuck River flows from top to bottom, over the dam (gray line to left). As migrating fish approach the dam from below, they will by-pass the dam by swimming up the channel to the right, and re-enter the river further upstream.

DRAWING BY: MILONE & MACBROOM ENGINEERING, LANDSCAPE ARCHITECTURE, and ENVIRONMENTAL SCIENCE

of the natural resources and recreational uses of the Housatonic River that were injured by the release of PCBs from the GE facility in Pittsfield, Massachusetts. Settlement funds grew to more than \$9 million in an interest-bearing fund.

The allocation of these funds is the responsibility of the Natural Resource Trustee SubCouncil for Connecticut, which is comprised of the natural resource trustees from the State of Connecticut and the federal Department of the Interior, through the USFWS, Department of Commerce, and NOAA.

The original restoration plan, released in July 2009, awarded funding for 27 projects, including about \$2.8 million for riparian and floodplain natural resources, \$2.6 million for recreational use of natural resources, and \$1.7 million for aquatic natural resources.

Highlights from completed projects under the Housatonic River Basin Natural Resources Restoration Plan:

- 25 acres in New Milford protected and restored by the Northwest Conservation District at the Native Meadows Wildlife Preserve;
- 20-acre Frost property in Sharon protected by the Housatonic Valley Association and Sharon Land Trust;
- More than 100 acres in Salisbury protected by The Nature Conservancy, the Trustees of Reservations, and the Salisbury Association Land Trust;
- 3.5 acres purchased by the Town of Harwinton for recreational access along the Naugatuck River;
- A one-mile bike trail and parking area constructed by the town in New Milford's Segs Meadows Park; and
- 12 acres purchased by the Town of Newtown for recreational access along the Halfway River.

Smooth Greensnake

Ophiodrys vernalis

Background and Range

The thin and small smooth greensnake is irregularly distributed in Connecticut. It is easily distinguished from other native snakes by its striking solid green coloration. This state species of special concern is facing the loss of its specialized habitat from the Connecticut landscape due to development and forest succession. In addition, populations are threatened by effects from insecticide spraying (contaminated prey). Mowing (lawns and hayfields) and farm equipment cause problems of their own by reducing vegetation height and causing direct mortality. Road mortality is another concern for this species, as well as predation by housecats.

"Spotty" would best describe this snake's range, both on local and broad scales. Overall, populations are mostly concentrated in New England, the southeastern Maritime Provinces of Canada, and northern portions of the midwest. In Connecticut, smooth greensnakes are found mostly in the eastern half of the state. They are rare in southwestern Connecticut and only occasionally found in the northwestern portion of the state.

Description

Small and delicate, this snake ranges from 12 to 25 inches in length. Its dorsal coloration is solid green with unkeeled (smooth) scales, while the underside is yellow or off-white. Juveniles resemble adults but are more olive-green in color.

Habitat and Diet

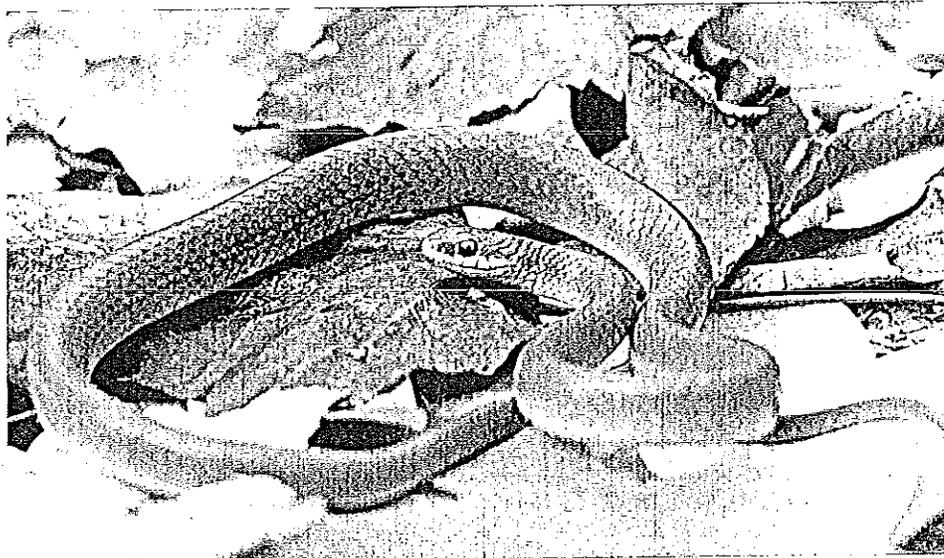
Smooth greensnakes favor moist, open habitats, such as old fields, meadows, pastures, fens, coastal grasslands, and edges of wetlands. Occasionally, this snake may inhabit sparsely forested areas with scattered shrubs and trees, such as mountaintop balds. Rural, undisturbed locations appear to be preferred, but smooth greensnakes have been found in urban and suburban areas as well.

Smooth greensnakes are insectivores; they feed on a variety of insects and spiders.

Life History

Smooth greensnakes reach sexual maturity at 11-12 inches, usually in their second year. Mating occurs in spring to late summer. Females in New England may lay their eggs and incubate them externally (oviparous) or retain their eggs and incubate them internally for a period of time (ovoviviparous), depending on summer weather conditions. A clutch of 3-13 eggs typically hatches sometime in July through September.

These snakes are active in Connecticut in May through November. Winters are spent underground, usually in rodent burrows, and sometimes with other snake species.



P. J. FUSCO

Interesting Facts

Smooth greensnakes are nonvenomous and completely harmless to humans. They are docile and will usually flee if threatened. These snakes have ecological importance by preying on insect populations and, in turn, provide a food source for other animals, such as hawks, great blue herons, raccoons, and foxes.

Although they are capable climbers, smooth greensnakes are much more likely to be found on the ground. They can be observed basking on rocks, logs, or other such basking sites.

Shortly after death, this snake loses its green coloration and turns bright blue.

The smooth greensnake is often confused with its similarly-colored close relative, the rough greensnake. However, the rough greensnake does not occur in Connecticut but in the southeastern United States. This species is considered to be more arboreal than terrestrial. It also has keeled scales (raised ridge in the center of each scale).

What You Can Do

Take the time to learn about, understand, and respect this vitally important reptile, and share your knowledge with others. If you encounter a smooth greensnake, observe it from a distance and allow it to go on its way. All snakes will retreat from humans if given a chance. You should not try to agitate it by getting too close or handling it. Although docile, it may try to bite. Never collect a greensnake as a pet. Not only is this illegal, but this snake does not survive well in captivity.

Do NOT attempt to kill any smooth greensnakes under any circumstances as this is an illegal action. Greensnakes are protected by Connecticut's Endangered Species Act and persons who kill or collect this special concern snake could be faced with fines or legal action. If you see or know of any suspicious or neglectful activity directed towards these snakes, you can report violators to the DEEP's 24-hour, toll-free TIP hotline (800-842-HELP) or Dispatch at 860-424-3333. Positive identifications of smooth greensnakes can be reported to deep.wildlife@ct.gov.

Northern Brownsnake

Storeria d. dekayi

Background and Range

The northern brown snake is found throughout Connecticut, and its population is currently considered secure in the state. This common but secretive snake flourishes in developed and urban areas. It was previously known as Dekay's brown snake.

The species is widely distributed over most of the northeastern United States and adjacent Canada, from southwestern Maine through Pennsylvania south to North Carolina.

Description

This small snake usually reaches an adult length of 9 to 15 inches. It has keeled scales (raised ridge along the center of each scale), and a dorsum (back) that ranges from dark brown or light tan in coloration. Two rows of darker spots run along the length of the back, often with a lighter band running between the darker rows. Irregular banding or weakly diamond-shaped patterns can also be found on the back. The belly is gray to pink and can have small black spots along the edges. A black mark is behind each eye and on the neck. Young northern brownsnakes can be identified by their white neck-ring, lack-of spots, and darker body.

Habitat and Diet

Northern brownsnakes are found in a variety of habitats, such as wetlands, grasslands, and forests, but they are most commonly encountered in disturbed or residential areas. Populations are most abundant in more developed portions of the state, even in vacant lots in some of Connecticut's largest cities. In forested areas of the state, these snakes are more localized, and often restricted to small patches of disturbance, such as along roadways, railroad tracks, or edges of fields.

This snake feeds during all hours of the day on insects, earthworms, slugs, snails, fish, and small amphibians (rarely).

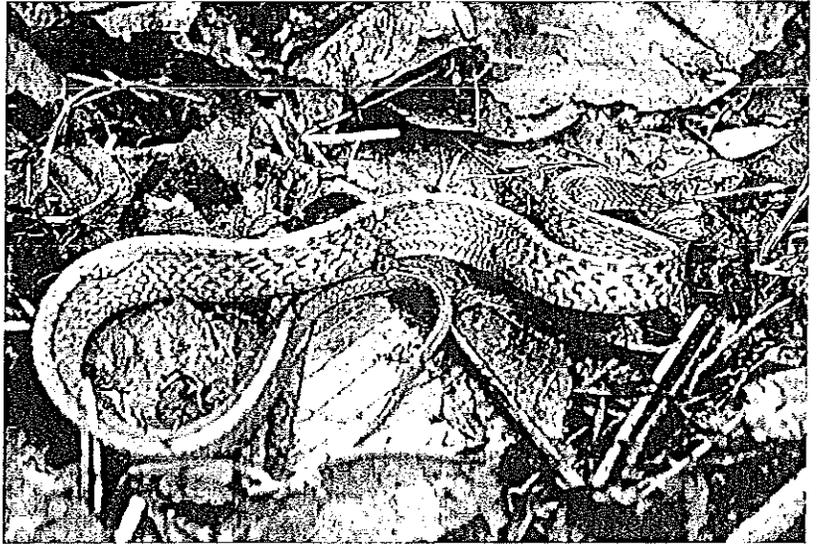
Life History

In southern New England, northern brownsnakes are active from March through November. Once they emerge from their winter dens in spring, they immediately begin to look for a mate. The mating season in New England extends from March to May. Beginning in mid-July through August, females give birth to live young (viviparous) after a 105-113 day gestation period. Litter sizes range from 3 to 31 young snakes, which measure about 3.5 inches. The young tend to stay near the female shortly after birth, but she does not take care of them and they must fend for themselves.

Interesting Facts

Northern brownsnakes are somewhat tolerant of colder temperatures. They will spend the winter in dens, such as rodent burrows, rock crevices, or under buildings, that are below the frost line. These winter dens are often communally shared with other brownsnakes and also with other snake species, like garter snakes, northern redbelly snakes, and smooth greensnakes.

These secretive snakes prefer to hide under rocks, logs, old



boards, and other similar debris. They are normally active during the day; however if daytime temperatures are too hot, the snakes will become nocturnal. This harmless snake is non-venomous and does not bite. However, if handled or provoked, it can produce a strong musk odor from its anal glands. This reaction is rare and only used as a last resort.

Northern brown snakes are often confused with northern redbelly snakes, which can be slightly smaller and have a brown or gray body with a bright red or orange belly and keeled scales (raised ridge in the center of each scale). Redbelly snakes are more widespread in forested areas, whereas brownsnakes are usually found in disturbed habitats.

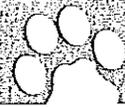
The northern brownsnake may expand its range and increase in population density throughout southern New England as rural areas become increasingly urbanized and snake species less tolerant of urban habitats decline.

What You Can Do

Take the time to learn about, understand, and respect this vitally important reptile, and share your knowledge with others. If you encounter a northern brownsnake, observe it from a distance and allow it to go on its way. All snakes will retreat from humans if given a chance. Even though a brownsnake may not bite, you should try not to disturb it by getting too close or handling it. Its only defense is the release of musk from special glands when disturbed. Never try to collect a brownsnake as a pet. In addition, the killing of any snake is strongly discouraged. If you encounter a snake problem, assistance can be found by calling the DEEP Wildlife Division at 860-675-8130.



Celebrate Snakes!
Learn all about
Connecticut's
snakes at [www.
ct.gov/deep/
YearoftheSnake](http://www.ct.gov/deep/YearoftheSnake).



What Is Eastern Equine Encephalitis?

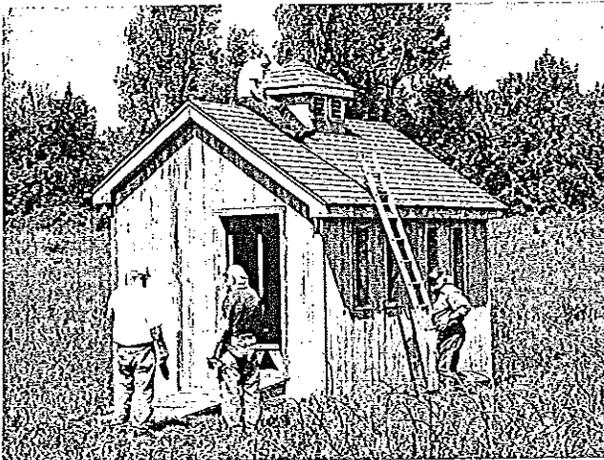
Eastern equine encephalitis (EEE) captured the headlines late in the summer of 2013 when Connecticut's Mosquito Management Program detected the EEE virus in mosquitoes in several towns in eastern Connecticut. DEEP responded by closing two campgrounds in Pachaug State Forest, as well as a portion of the forest where infected mosquitoes were found. In addition, the state conducted ultra low-volume ground spraying in the area to reduce the number of mosquitoes. By mid-September, a miniature horse from Griswold was euthanized after becoming infected with EEE and falling ill. It was the first incidence in Connecticut this year of a horse having contracted the disease.

Why so much concern about EEE? This rare but serious disease is caused by a virus that is spread by adult mosquitoes. On average, about five cases are reported each year in the United States. There has never been a documented human case of EEE in Connecticut, but the virus is found in birds and bird-biting mosquitoes that live near wetland habitats along the eastern seaboard from New England to Florida. In some years, high numbers of birds get infected, favoring spread to the types of mosquitoes that bite both mammals and birds. These mosquitoes can then infect people and horses. EEE is not spread by people and horses with the disease. The risk of getting EEE is highest from late July through September.

The virus responsible for EEE attacks the central nervous system of its host. Horses are particularly susceptible to the infection and mortality rates approach 100%. Signs of the disease in horses include unsteadiness, erratic behavior, loss of coordination and seizures. There is no effective treatment and death can occur within 48 to 72 hours of the horse's first indications of illness. Horses can and should be inoculated against this disease, especially in areas where EEE is known to circulate.

In humans, symptoms of EEE appear from three to 10 days after being bitten by an infected mosquito. Some infected people may not develop illness. For those who become ill, the clinical symptoms may include high fever (103 to 106 degrees F), stiff neck, headache, and lack of energy. Inflammation of the brain, encephalitis, is the most dangerous symptom. The disease worsens quickly and some patients can go into a coma within a week. Once symptoms develop, treatment for EEE is supportive and aimed at reducing the severity of the symptoms. Up to one-third of people who get the disease may die from it. Of those who survive, approximately one-half will have permanent neurologic damage. Presently, there is no available vaccine for use in humans. More information about EEE, West Nile virus, and mosquito testing is available at www.ct.gov/mosquito.

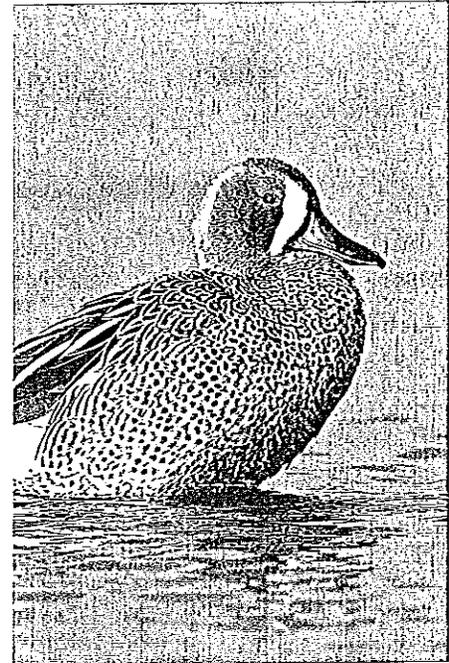
Thanks to the Northwestern CT Sportsman's Council



Members of the Northwest Connecticut Sportsman's Council recently volunteered their time to refurbish a bird blind at the Goshen Wildlife Management Area in Goshen. Council chairman Chris Marino, along with members Jerry Ciarcia, Jim Fairchild, Jim Fedorich, Dominic Yardito, and Gordon Smith, spent over 40 man-hours painting and refurbishing the bird blind. The DEEP Wildlife Division greatly appreciates their efforts!

New! Interactive Maps for Hunters and Saltwater Anglers

Hunters have a new resource to obtain maps and more detailed information about hunting areas in Connecticut. The DEEP website (www.ct.gov/deep/hunting) has a link to an Interactive Map feature that allows hunters to find hunting areas by "type" (i.e., deer lottery, small game hunting, etc.) or by specific name. Options are available to view a satellite image (showing boundaries), a topographic map, or a PDF of a map that also provides details on location, access, a habitat description, and more. This is a great resource for planning your next hunting outing. For those interested in saltwater fishing, check out the new Saltwater Fishing Resource Map on the DEEP website: www.depdata.ct.gov/maps/saltwaterfish/map.htm. This map shows the locations of points of interest related to saltwater fishing within Connecticut and around Long Island Sound.



P. J. FUSCO

Silvio O. Conte NWR Expands in Connecticut

The U.S. Fish and Wildlife (USFWS) Service recently partnered with The Nature Conservancy to add 66 acres of tidal marsh and coastal lands along Whalebone Cove in Lyme, Connecticut, to the Silvio O. Conte National Fish and Wildlife Refuge. The addition establishes the refuge's new Whalebone Cove Division. The expansion includes a donation of 40 acres from The Nature Conservancy and the USFWS purchased 26 acres from a private landowner.

The newly protected property contains approximately 2,000 feet of Connecticut River frontage and forms the southern entrance to Whalebone Cove. It features extensive high and low tidal marsh communities; steep, wooded slopes; an upland kettle-hole wetland complex; floodplain forest; upland meadows; and mature forest. Whalebone Cove features exemplary tidal marshes that host one of the largest stands of wild rice in Connecticut. It is an important wintering area for bald eagles and black ducks and a significant feeding area for migratory waterfowl. Whalebone Cove is one of the most undisturbed and biologically significant freshwater tidal marshes on the Connecticut River.

Silvio O. Conte NWR was established to conserve native plants, animals and their habitats in the 7.2 million acre Connecticut River watershed that stretches across four states (including Connecticut). It is the only refuge in the country dedicated to a river's entire watershed. The refuge works to protect land, form partnerships with citizens to foster conservation efforts, educate the public, and pass on the importance of the watershed to future generations.

The Nature Conservancy (www.nature.org)

Kokanee Salmon (aka the Red Salmon)

Written by Brian Eltz and Edward Machowski, DEEP Inland Fisheries Division

Autumn in Connecticut brings about a change in foliage colors, but leaves are not the only things that transform in fall. The kokanee salmon (*Oncorhynchus nerka*), a landlocked form of the larger anadromous sockeye salmon, undergoes extreme changes in preparation for a once in a lifetime spawning event (kokanee, like all Pacific salmon, are semelparous, meaning they spawn only once and die). Each fall, as spawning season approaches, both male and female salmon undergo drastic physiological changes, including degeneration of some internal organs and absorption of scales to form thick and leathery-tough skin. These changes are adaptations used by Pacific salmon to endure the rigors of spawning. In addition, mature males will develop a humped back, “fang-like” teeth, and the characteristic hook-jaw (kype). Their color will change from dark blue on the head and

back with silvery sides to bright or olive-green on the head, with deep crimson red and orange coloring on their bodies. The coloration change of spawning females is less brilliant than that of males.

Kokanee reach maturity between two to four years of age, depending on genetics and growth rate. Once mature, the salmon seek suitable spawning areas like gravel beds along a lake’s shoreline or inlet streams, where they spawn between August and November. A female, commonly referred to as a hen, can carry up to 2,000 eggs. She deposits the eggs into redds (a nest) that she scrapes out of the gravel with her tail, and waits for a suitable male to fertilize them.

Adults die within days of spawning, but the fruits of their labor will appear from the nests within a couple of months as alevins, also known as sac-fry. The fry leave their nests to feed on plankton, and

as they grow in size, they are referred to as parr or fingerlings. At this stage, the parr move to pelagic (open) water, forming schools and growing to adult size while feeding on zooplankton.

Natural populations of landlocked kokanee are found from Alaska, south through western Canada and into Washington and Oregon. Like many other gamefish, kokanee have been widely distributed around the United States, including Connecticut. Their origin in Connecticut is unclear, but kokanee were first observed in East Twin Lake (Salisbury) during the 1930s. The salmon successfully reproduced and a recreational fishery blossomed early by the 1940s. However, natural reproduction could not support the fishing pressure, and the population crashed in the late 1940s. Because of this fish’s popularity, the Connecticut Board of Fisheries and Game (predecessor to



J. MURTAGH, DEEP INLAND FISHERIES

DEEP Inland Fisheries staff hoist a trap net in search of mature kokanee salmon during the fall of 2012.

DEEP) reintroduced kokanee into East Twin Lake by the late 1950s.

To sustain the kokanee fishery at the lake and prevent a crash similar to the one that occurred a decade earlier, it was necessary to stock hatchery-reared fry each year. To rear large numbers of fry, mature fish were collected from East Twin and brought to the State's Burlington Fish Hatchery where eggs were removed (stripped), fertilized with sperm, and placed in incubation trays. Generally, 40,000 to 50,000 fry were stocked into the lake each spring. Fry stocking was successful due to the productivity of this limestone-based lake. By the 1970s, East Twin Lake became one of the most popular kokanee fisheries in the Northeast. Because of the kokanee's success at the lake, the Inland Fisheries Division introduced salmon fry into 15 other lakes. Only two of the lakes, Lake Wononskopomuc (Salisbury) and West Hill Pond (Barkhamsted, New Hartford), were able to produce fishable populations of kokanee.

Unfortunately, history repeated itself in the 1990s when kokanee were extirpated from East Twin and Wononskopomuc. Landlocked alewives (introduced to the lakes illegally) out competed the kokanee for their food source of plankton.

Fast forward to today, and kokanee can once again be caught at East Twin Lake and occasionally at Lake Wononskopomuc because alewife populations have either declined or crashed. Presently, DEEP stocks approximately 75,000 fry into East Twin Lake. West Hill Pond and Lake Wononskopomuc each receive approximately 50,000 kokanee fry each year. Currently, all broodstock salmon are collected from West Hill Pond because highly invasive zebra mussels are present in East Twin Lake. Angler catches are reported from all three lakes, but hook-ups are most frequent at West Hill Pond where 13- to 14-inch fish are commonly caught. Catch rates at East Twin Lake are low, but salmon up to 18 inches have been reported by anglers. A new state record kokanee weighing 2 lbs. 14 oz. was caught from East Twin in 2011. Salmon catches at Lake Wononskopomuc are rare because alewives are still present.

How to Catch a Kokanee Salmon

Kokanees provide excellent table fare and are great fighters on light tackle. They can be caught from early spring through late September, but May to July is considered the best period to catch them. During this time, zooplankton numbers



J. MURTAGH, DEEP INLAND FISHERIES

Kokanee salmon undergo significant changes during the spawn, including turning a beautiful shade of red. Males, like this one, also will develop a large hooked jaw (kype).

are increasing rapidly; this may be one reason for the aggressive feeding behavior often seen by anglers. Many anglers believe kokanee are most readily caught in the morning before 9:00 AM, but most experts say the fish can be caught throughout the day. Kokanee prefer cold, well-oxygenated water and are often found in the deep waters below the thermocline (transition between the warmer mixed layer of water near the surface and cooler deep water layer). Salmon tend to swim in schools, following the movements of zooplankton, and are often easily detected with fish finders.

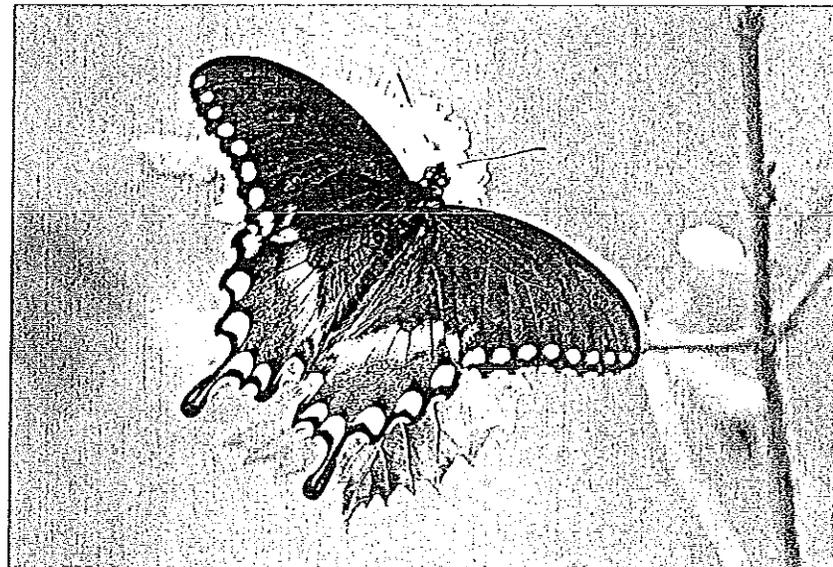
The primary method for catching kokanee is to troll slow and deep, with a spinner rigged with a chunk of worm, maggot, or piece of corn. Often lead core line, downriggers, or one- to three-ounce sinkers are used to get the lure or bait to the required depth. Kokanee will also hit small spoons and hootchies (plastic skirt that looks like a squid). They tend to prefer green or chartreuse lures early in the day and bright red, pink, white, or orange under good light conditions. Often, anglers will use a small dodger (thin metal spoons) attached to the line ahead of a lure to add action. Many anglers swear by the time-honored tradition of using Green

Giant-white shoe peg corn. In fact, many argue it is the only corn you should use!

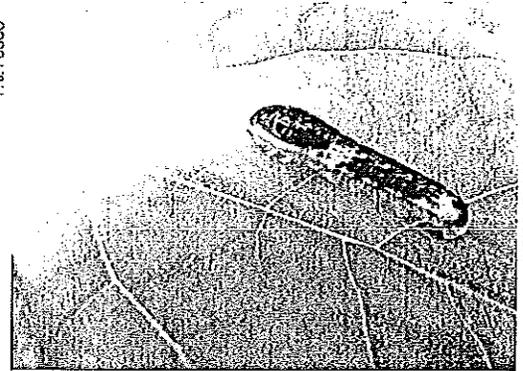
Angling at night is another popular and often more productive fishing method. Beginning at dusk, anglers will anchor in deep water (near 40 feet) and use lanterns or floating or submersible lights to attract zooplankton and also salmon. Using light line (4 – 6 lb. test), anglers attach a weight or lure, along with either a Glo Hook or small red hook (#10 or #12 Gamagatzu) tipped with a piece of corn, worm, or maggot. This rig is fished typically at, or just below, the thermocline. Generally a seven-foot light action rod with a level-wind reel is preferred. At night, kokanee strikes are subtle, so use of a spring bobber or similar device is often necessary to detect the hit. Kokanee have soft mouths, so it is best to set your drag on the lighter side and keep the line tight. Good luck and remember to keep those lines tight!

During autumn, as the winds of change bring crisp dry air, the first frosts, apple picking, and leaf peeping, keep in mind that the kokanee salmon are also busy changing into their spawning attire and being captured by our fisheries biologists to produce the next generation of these unique fish.

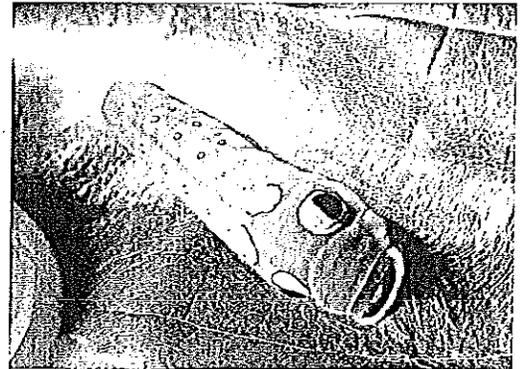
Kokanee salmon provide excellent table fare and are great fighters on light tackle.



P. J. FUSCO



Caterpillar of the spicebush swallowtail mimicking a bird dropping.



Caterpillar of the spicebush swallowtail mimicking a snake with big vestigial eyes.



The spicebush swallowtail caterpillar can fold over leaves of a spicebush, using them for cover.

Spicebush Swallow Tail Butterfly Demonstrates Association with Native Plants

Improving habitat by planting native plants can range from landscaping your yard to restoring a listed plant species. Connecticut's roughly 1,800 native plants have co-evolved with wildlife and developed interdependent needs. Take, for example, the association between spicebush (*Lindera benzoin*), a small shrub that can grow up to six feet tall, and the spicebush swallowtail butterfly (*Papilio troilus*). Spicebush is an important host plant for this butterfly, which lays its eggs on the plant. The caterpillar spends a portion of its life hiding and foraging on spicebush leaves.

The spicebush swallowtail caterpillar takes on several different appearances to thwart potential predators. The top (right) photograph illustrates how the caterpillar mimics a distasteful bird dropping to improve its chances of survival. At the next stage of change, the caterpillar looks like a large-eyed snake (middle photograph). If spooked or threatened, the caterpillar sticks out a vestigial orange tongue with a strong odor. It also spends a considerable amount of time folding over leaves to form a channel in which the caterpillar can hide from predators and protect itself from outdoor elements (bottom photograph). These adaptations have evolved over millennia.

Look for the caterpillars of spicebush swallowtail butterflies on spicebush shrubs in most wetlands or moist forest understories throughout Connecticut. The key to finding this fascinating insect is to look for folded-over leaves on spicebush shrubs. How do you identify a spicebush? This shade tolerant shrub has dark green, oval-shaped leaves with a smooth edge. The leaves can grow up to five inches in length, and have a lemony scent when crushed. The flowers, which bloom in March and April, are small and pale yellow. The fruits, called drupes, are shiny red berries that provide food for a variety of birds and mammals.

Peter Picone, DEEP Wildlife Division

New Hunting and Trapping Regulations

A number of changes to hunting and trapping regulations were approved and implemented for the fall 2013 hunting seasons, including:

- Adding crossbows as legal archery equipment
- Expanding junior deer and turkey hunter training opportunities
- Allowing muzzleloading firearms during the shotgun/rifle deer seasons
- Providing an orange clothing exemption for predator hunters
- Changing the methods for tagging gamebirds taken during regulated activities
- Adjusting the crow hunting season dates

In addition, the new regulations establish specific protections for snapping turtles by designating seasons, size/bag limits, gear restrictions, and other measures designed to ensure the long-term viability of Connecticut turtle populations.

The changes are not currently published in the 2013 Connecticut Hunting and Trapping Guide, but will be included in the 2014 guide, which is in production. More details can be found on the hunting and trapping section of the DEEP's website at www.ct.gov/deep/hunting.

Conservation Calendar

Programs at the Sessions Woods Conservation Education Center

Programs are a cooperative venture between the Wildlife Division and the Friends of Sessions Woods. Please pre-register by calling 860-675-8130 (Mon.-Fri., 8:30 AM-4:30 PM). Programs are free unless noted. An adult must accompany children under 12 years old. No pets allowed! Sessions Woods is located at 341 Milford St. (Route 69) in Burlington.

- Nov. 3.....**Wild Alaska**, starting at 2:00 PM. The Friends of Sessions Woods welcomes back wildlife photographer and Master Wildlife Conservationist Gary Melnysyn for a presentation on beautiful, wild Alaska. Gary has been fortunate to photograph grizzlies, moose, caribou, and bald eagles while visiting Alaska. His stunning wildlife images have delighted audiences throughout the region. Gary is affiliated with a variety of professional organizations and has received various awards. He also will provide insight and tips for successful wildlife images during the program.
- Nov. 16.....**Children's Program: Wild Turkey Trek**, starting at 1:30 PM. Mindy Domurat, Outreach Assistant for the Wildlife Division, will present this wild turkey adventure suitable for children ages 3 to 10. Mindy will begin indoors with background information about wild turkeys before a trek outside on the trails. Following the walk, children are invited to create a wild turkey craft.
- Dec. 14.....**Winter Walk**, starting at 1:00 PM. Join Wildlife Division Natural Resource Educator Laura Rogers-Castro for a guided walk along the trails at Sessions Woods. Laura will discuss features in the winter landscape that help provide wildlife with the resources needed during this challenging season. Participants should dress for the weather. The length of the walk will be determined based on current conditions. Meet in the lobby of the Conservation Education Center.
- Jan. 18.....**Snowshoe Walk**, starting at 1:00 PM. Snowshoe along the trails at Sessions Woods to look for signs of wildlife activity. Natural Resource Educator Laura Rogers-Castro will lead this program and identify the sights and sounds of wildlife on a winter afternoon. This program is snow-dependent and participants must supply their own snowshoes. The walk will be determined based on the snow conditions. Participants should wear appropriate clothing and bring water for this somewhat strenuous excursion. Meet in the lobby of the Conservation Education Center.

Hunting Season Dates

- Sept. 16-Nov. 19 First portion of the deer and turkey bowhunting season on state land
- Sept. 16-Dec. 31 Deer and turkey bowhunting season on private land and state land bowhunting only areas
- Oct. 5-31 Fall Firearms Turkey Season
- Oct. 5 & Nov. 2 Youth Waterfowl Hunter Training Days
- Oct. 19 Opening day for the small game hunting season
- Nov. 9-16..... Youth Deer Hunter Training Days
- Nov. 20-Dec. 10 Statewide Firearms Deer Hunting Season

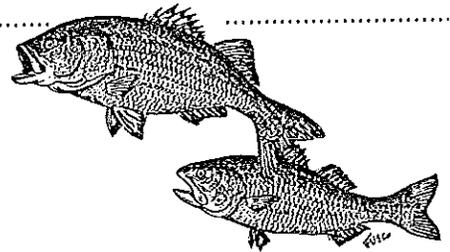
Consult the 2013 Connecticut Hunting & Trapping Guide and the 2013-2014 Migratory Bird Hunting Guide for specific season dates and details. Printed guides can be found at DEEP facilities, town halls, bait and tackle shops, and outdoor equipment stores. Guides also are available on the DEEP Web site (www.ct.gov/deep/hunting). Go to www.ct.gov/deep/sportsmenlicensing to purchase Connecticut hunting, trapping, and fishing licenses, as well as required deer, turkey, and migratory bird permits and stamps. The system accepts payment by VISA or MasterCard.



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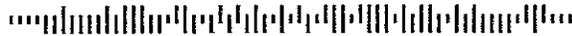
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Order on-line with a credit card through the DEEP Store at: www.ct.gov/deep/WildlifeMagazine

Connecticut Wildlife

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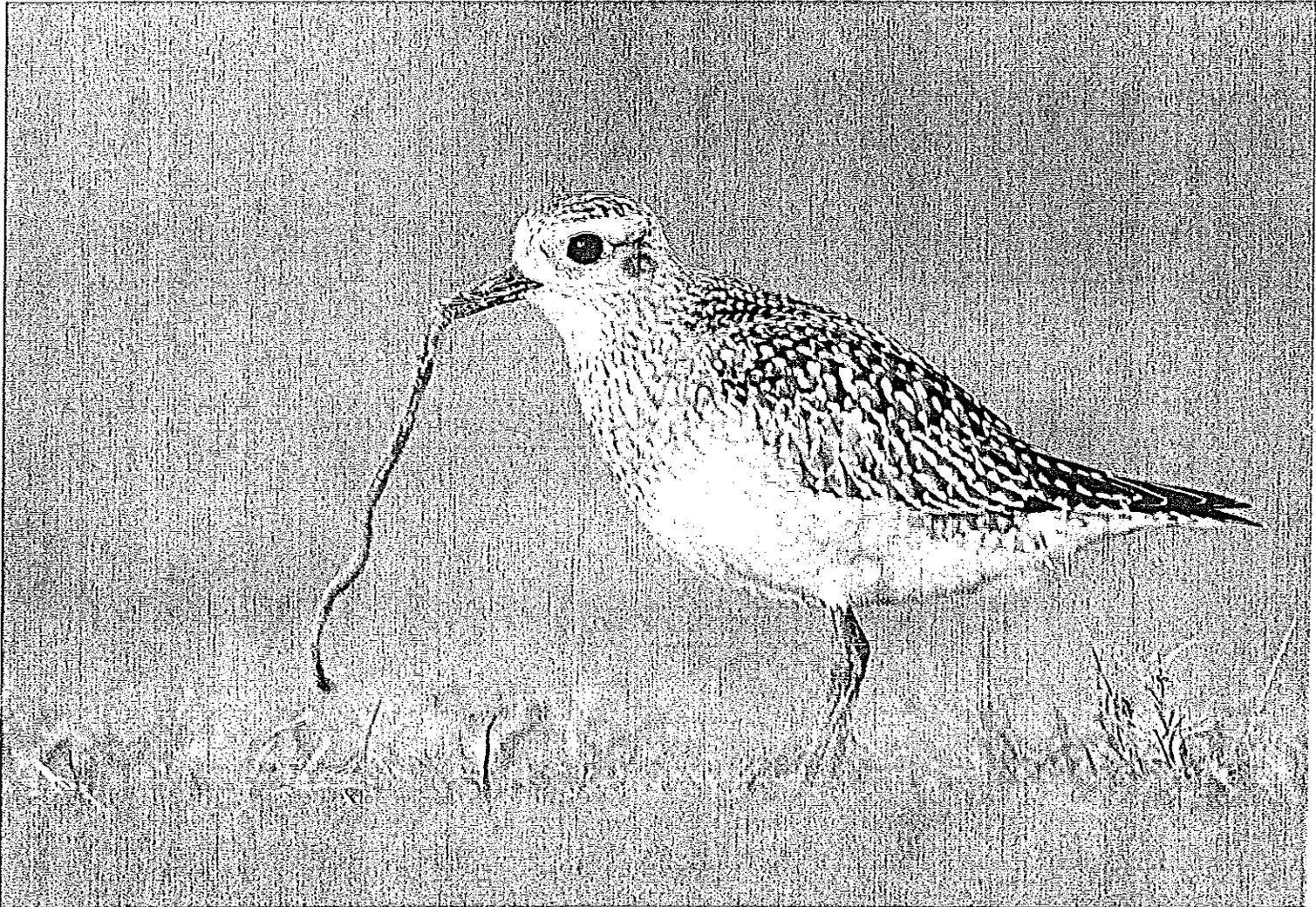
EXPIRES: COMP.

MANSFIELD CONSV/INLD WETLANDS

TOWN HALL

4 S EAGLEVILLE RD

STORRS CT 06268-2574



P. J. FUSCO

A juvenile American golden plover wrangles an earthworm in a grassy field along the Connecticut shoreline. Such shoreline habitats serve as important stopover sites for migratory shorebirds, like the plover, during their remarkable fall migration which takes them from their Arctic breeding grounds to as far south as the Pampas region of Argentina every fall, a distance that may be over 8,000 miles.

Telephone: (860) 974-0127

Fax: (860) 974-2963



101 Hampton Road
Pomfret Center, CT 06259

Conserving Forests / Crafting Wood / Since 1965

October 18, 2013

Grant Meitzler
Audrey P. Beck Municipal Building
4 S.Eagleville Rd
Mansfield, CT 06268

Dear Grant,

Enclosed please find the Notification of Timber Harvest Form regarding a project our company plans to conduct on the land owned by Bettejane Karnes off N.Eagleville Road. The access is already established via an existing driveway. There are no wetland crossings associated with this project. Upon completion the waterbars will be installed on the main skid trail where appropriate. We understand the sensitivity of this site and all Best Management Practices regarding Timber Harvesting as adopted by the CT DEEP will be strictly adhered to. It is our understanding that this type of agricultural activity is permitted as a Use of Right and hope that upon your review you will find the same. Please contact me if there is any other information you may need or if you would like to visit the site together.

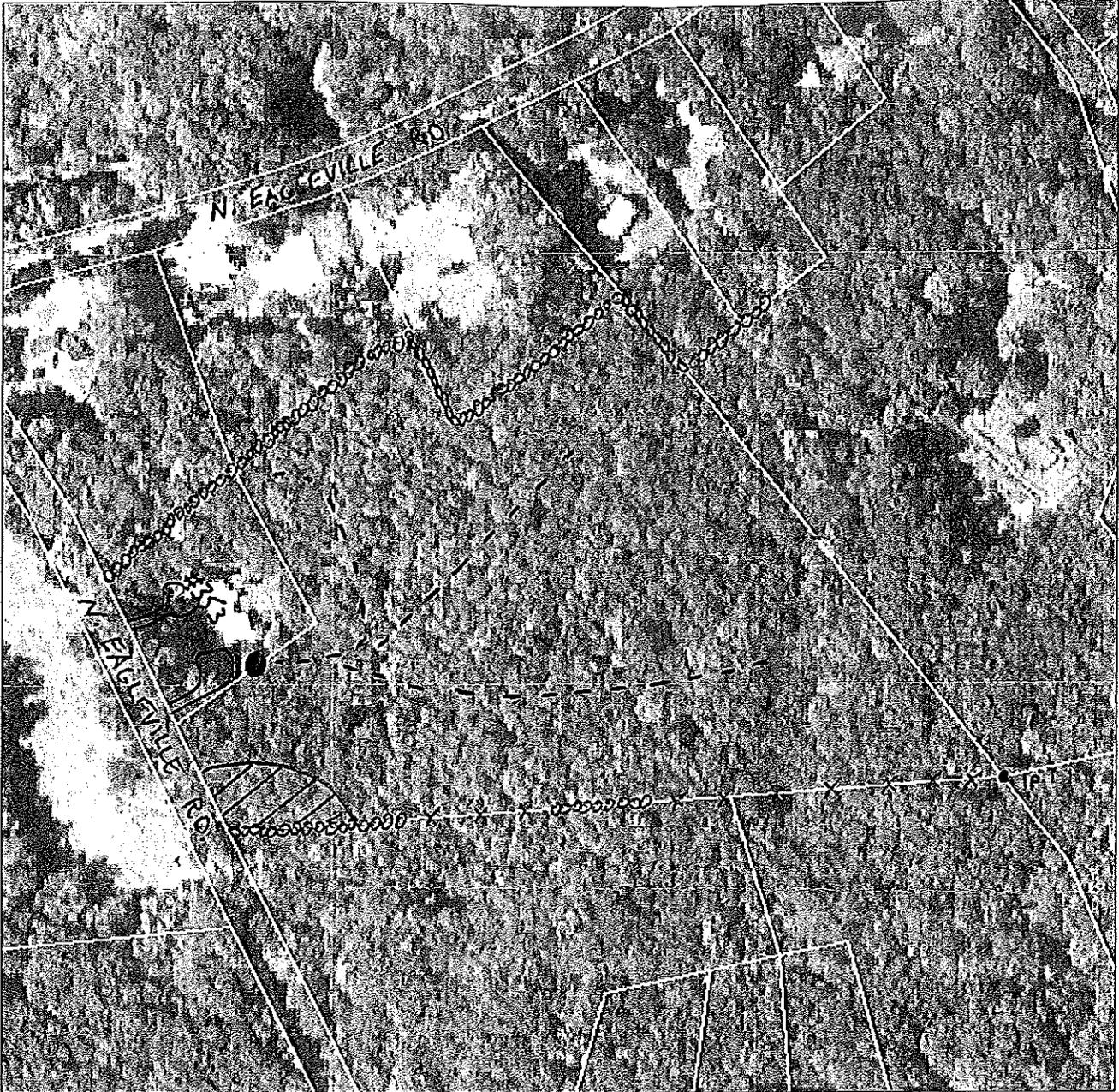
Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Chris Casadei". The signature is fluid and cursive, with a large loop at the end.

Chris Casadei
Forester

KARNES PROPERTY TIMBER HARVEST MAP

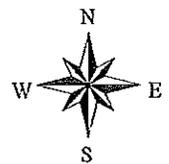
353 N. EAGLEVILLE RD
M15 B29 L37&38



LEGEND

-  STONEWALL
-  WIRE FENCE REMAINS
-  YARDING AREA
-  MAIN SKID TRAIL
-  NO HARVEST AREA

Approximate Scale: 1 inch = 200 feet



PREPARED BY
C.CASADEI
HULL FOREST PRODUCTS
OCTOBER 2013

NOTIFICATION OF TIMBER HARVEST

Town: MANSFIELD Date: 10/18/13
 Property Location: 353 N. EAGLEVILLE RD

List all parcels:
 Assessor's Info:

Map	Block	Lot
15	29	37
15	29	38

OR:

Unique ID

Total acreage of property(s): 5 Total acreage of harvest area: 4

Landowner(s) of Record: BETTEJANE KARNES
 Mailing Address: 353 N. EAGLEVILLE RD
 Town: STORRS Zip 06268
 Phone () _____
 E-mail: _____

Primary Contact: CHRIS CASADEI
 Mailing Address: 508 PEROW
 Town: _____ Zip _____
 Phone () _____
 E-mail: _____

Note: Timber harvesting is a *Permitted as of Right Activity* pursuant to the Inland Wetlands and Watercourses Act, except for those practices regulated under Section 22a-36 through 22a-45 of the Connecticut General Statutes.

Is there a current forest management/stewardship plan for this property? Yes No

This timber harvest has been prepared by a State of Connecticut certified:
 (Check one): Forester OR Supervising Forest Products Harvester
 Forest Practitioner Certificate #: F 463
 Name: CHRIS CASADEI % HULL FOREST PRODUCTS, INC.
 Address: 101 HAMPTON RD, POMFRET CENTER, CT 06259
 E-mail: casadei@hullforest.com
 Phone #: (Business) 860-974-0127 (Cell) 860-235-6550

Property Boundaries:
 Bounds are marked: Yes No

Timber Harvest Boundaries:
 Have been marked or flagged: Yes No

Have owners of all lands within 100 feet of the harvest area been notified via first-class mail prior to filing this "Notification of Timber Harvest"? Yes No
 Estimated starting date of timber harvesting operations: 12/1/13

Description of Timber Harvest:
 Objective: INCOME GENERATION, ESTABLISH/RELEASE REGENERATION
 Treatment: CONSERVATIVE HARVEST

Amount of forest products to be harvested:
48,720 Board feet .35 Cords _____ Cubic feet _____ Tons

How have the trees to be harvested been designated?
 They have been marked with paint at eye level and at ground level. Paint color(s): BLUE
 They have not been marked

This is not an official CT DEP form but it has been endorsed for town usage by: CT Farm Bureau Assoc., CT Forest & Park Assoc., CT Professional Timber Producers, Society of American Foresters - CT Chapter, and others.

SOIL, WATER AND INLAND WETLANDS RESOURCES

Actions Being Performed On This Land

(Check all that apply and locate on attached Timber Harvest Area map -- see information below on maps.)

<p align="center"><u>Crossings / Clearing</u></p> <p><input type="checkbox"/> Temporary stream/drainage crossing <input type="checkbox"/> Temporary wetlands crossing <input type="checkbox"/> Removal of trees in wetlands <input type="checkbox"/> Removal of trees in upland review area</p>	<p align="center"><u>Erosion and Sedimentation Control Measures:</u></p> <p><input checked="" type="checkbox"/> Installation of water bars <input type="checkbox"/> Grading <input type="checkbox"/> Seeding <input type="checkbox"/> Other (describe below)</p>
<p align="center"><u>Log landing area:</u></p> <p><input type="checkbox"/> Anti-tracking pad <input type="checkbox"/> curb cut <input checked="" type="checkbox"/> EXISTING DRIVEWAY</p>	<p align="center"><u>Roads</u></p> <p>Are new roads, other than skid trails, to be constructed for transport of logs or other activities associated with this harvest? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

Describe in further detail as necessary:

THERE ARE NO WETLAND CROSSINGS OR TREES HARVESTED FROM WETLANDS ASSOCIATED WITH THIS OPERATION. ALL BEST MANAGEMENT PRACTICES AS ADOPTED BY THE CT DEEP SHALL BE STRICTLY ADHERED TO.

The following maps are attached to this "Notification" (Check all that apply)

- Copy of USGS topographic map with property outlined
- Copy of Assessor's map with property outlined
- Timber Harvest Area map showing outline of harvest area, main skid road locations, log landing area, truck access roads, inland wetlands, watercourses and any crossings

The undersigned hereby swear that the information contained in this application is true, accurate and complete to the best of my (our) knowledge and belief and that the timber harvest will be conducted in accordance with the specifications outlined in this "Notification of Timber Harvest."

Signature of Landowner(s): SEE ATTACHED TIMBER SALE AGREEMENT Date: _____

Print/Type Name: _____

Signature of Landowner(s): _____ Date: _____

Print/Type Name: _____

Signature of Certified Forest Practitioner:  Date: 10/18/13

Print Name: CHRIS CASADEI

Certificate #: F 463 Expiration Date: 11/1/16

Complete and Submit to:

- The Municipal Inland Wetlands Agency/ies in which the property is located, and
- A courtesy copy of this Notification Form should also be sent to The Department of Environmental Protection, Division of Forestry 79 Elm Street, Hartford, CT, Tel: (860) 424-3630

This is not an official CT DEP form but it has been endorsed for town usage by: CT Farm Bureau Assoc., CT Forest & Park Assoc., CT Professional Timber Producers, Society of American Foresters - CT Chapter, and others.

TIMBER SALE AGREEMENT

It is agreed between Bettejane Karnes of 353 N. Eagleville Road, Mansfield, CT 06268, hereinafter called the Seller, and Hull Forest Products, Inc. of 101 Hampton Road, Pomfret Center, CT 06259 hereinafter called the Purchaser, that the Purchaser shall buy from the Seller and the Seller shall sell to the Purchaser, certain designated standing trees or timber located on approximately 5 acres North of North Eagleville Road, in the Town of Mansfield, in the State of CT. It is further agreed that the Purchaser may enter upon the land of the Seller for the purpose of cutting and removing such designated trees or timber, and is authorized to prosecute such work, on the area described above subject to the following conditions:

1. The price for the designated trees or timber to be cut shall be \$████████ for an estimated 48,720 board feet of sawtimber and 35 cords of firewood. Payment terms shall be as follows: \$██████ to be paid upon signing and \$██████ within one week of the start of harvest.
2. All trees or standing timber cut under this agreement shall be removed from the land of the Seller within 6 months of the date of the agreement. In the event of wet weather or inappropriate ground conditions the Seller reserves the right to suspend harvesting operations and shall grant an extension of this agreement, if needed, for the same period of time suspended.
3. The Seller hereby covenants and agrees that they are lawfully possessed of the above described goods, chattels, and personal property as their own property.
4. Trees sold to the Purchaser shall be 258 sawtimber trees as designated with a blue paint mark upon the main stem and the base of the trunk. The Purchaser shall determine the use of the marked material and remove only material determined to be of commercial value as sawtimber or firewood.
5. The Purchaser agrees to indemnify and save harmless the Seller from all claims of personal injury, demands, suits and other legal proceedings arising or incidental to his operations. Hull Forest Products agrees to carry a minimum of \$1,000,000.00 General Liability Insurance and \$500,000.00 Workmen's Compensation Insurance for the duration of the harvest and to provide the Seller with certificates of insurance confirming said insurance coverage, and to name the Seller as an additional insured on such policies for the period of harvest.
6. Care shall be exercised in the felling, cutting and removal operations so that undesignated standing trees will not be unnecessarily damaged.
7. Excessive rutting (greater than 8" in depth) shall be repaired by the Purchaser. The existing access roads will be left in the condition found or better by the Purchaser.

8. Purchaser shall take precautions to prevent spillage of petroleum products or hazardous materials while refueling or performing maintenance on harvesting equipment. The Purchaser shall indemnify and hold the Seller harmless for any and all damages, including attorney fees and civil penalties, for which the Seller may become liable as a result of any such spillage.

9. All trees designated for removal by the Purchaser shall be cut as low as possible and in such a manner that the stump mark of paint is visible.

10. The Purchaser shall be responsible for following all rules and regulations regarding the harvest of forest products in the State of CT and the Town of Mansfield and for obtaining all permits required for such harvest.

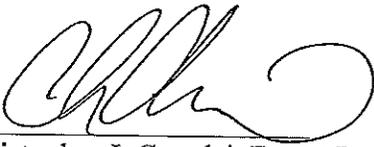
11. The Purchaser agrees to slash the tops from the timber harvested to a height not to exceed three feet above ground level on the property of the Seller.

Dated this 11th day of October, 2013

Seller

Hull Forest Products, Inc.

By Bettejane Karnes
Bettejane Karnes

By 
Christopher J. Casadei, Forest Resources Manager
Duly Authorized