

AGENDA
Inland Wetland Agency
Regular Meeting
Monday, November 2, 2009
Council Chambers, Audrey Beck Building

Call to Order: 7:00 PM

Review of Minutes of Previous Meetings and Action Thereon:

10.05.2009 - Regular Meeting
10.15.2009 - Field Trip
10.19.2009 - Special Meeting

Communications:

Conservation Commission re: W1439 - Kovarovics
W1440 - Chew
W1441 - Kleinfelder

GM monthly business memorandum

Old Business:

Modification Request:

W1439 - Kovarovics - Daleville Rd - driveway relocation

Applications:

W1440 - Chew - Thornbush Rd - house addition and shed in buffer
W1441 - Kleinfelder - 7 Storrs Rd - soil sampling in buffer

New Business:

none.

Reports of Officers and Committees:

Other Communications and Bills:

1. UConn letter re: Hillel House, W1437
2. CT Wildlife, September/October 2009
3. Conn Federation of Lakes Symposium 10.27-10.31.2009
4. CLEARscapes newsletter Fall 2009
5. CACIWC Annual Meeting, 11.14.2009
6. Habitat - Summer 2009

Adjournment:

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DRAFT MINUTES
MANSFIELD INLAND WETLANDS AGENCY
Regular Meeting
Monday, October 5, 2009
Council Chambers, Audrey P. Beck Municipal Building

Members present: R. Favretti (Chairman), B. Gardner, J. Goodwin (7:48 p.m.), R. Hall, K. Holt,
P. Kochenburger, P. Plante, B. Ryan
Members absent: B. Pociask
Alternates present: M. Beal, G. Lewis (7:02 p.m.), L. Lombard
Staff present: G. Meitzler (Wetlands Agent)

Chairman Favretti called the meeting to order at 7:00 p.m. Alternate Beal was appointed to act in Pociask's absence and Lewis was appointed to act until Goodwin arrived.

Minutes:

9-8-09 - Plante MOVED, Ryan seconded, to approve the 9-8-09 minutes as written. MOTION PASSED with all in favor except Hall who disqualified himself.

9-15-09 Field Trip - Ryan MOVED, Holt seconded, to approve the 9-15-09 field trip meeting minutes as written. MOTION PASSED with Ryan, Holt, Gardner, Favretti and Beal in favor and all others disqualified.

Communications:

The 9-16-09 Conservation Commission Draft Minutes and 10-1-09 Wetlands Agent's Monthly Business report were noted.

New Business:

W1440- Chew- Thornbush Road- House Addition & Shed

Holt MOVED, Ryan seconded, to receive the application submitted by Michael R. Chew (IWA file #1440) under Section 5 of the Wetlands and Watercourses Regulations of the Town of Mansfield for the construction of a 15' x 15' addition to an existing house and construction of a 15' x 20' shed on property located at 16 Thornbush Road on property owned by the applicant, as shown on a map dated June 22, 2006, revised September 28, 2009 and as described in other application submissions, and to refer the application to the staff and Conservation Commission for review and comment. MOTION PASSED UNANIMOUSLY.

W1441- Kleinfelder-7 Storrs Road- Soil Testing

Holt MOVED, Ryan seconded, to receive the application submitted by John Liddon Kleinfelder (IWA file #1441) under Section 5 of the Wetlands and Watercourses Regulations of the Town of Mansfield for delineation investigation and wetland surface water/sediment sampling on property located at 7 Storrs Road on property owned by Eugene S. Mittelman, as shown on a map dated September 18, 2009 and as described in other application submissions, and to refer the application to the staff and Conservation Commission for review and comment. MOTION PASSED UNANIMOUSLY.

W1439- Kovarovics- Daleville Road

Holt MOVED, Gardner seconded, to receive the application submitted by Michael and Kim Kovarovics (IWA file #1439) under Section 5 of the Wetlands and Watercourses Regulations of the Town of Mansfield for relocation of a driveway located on Daleville Road, near SNET Pole # 3015, on property owned by the applicants, as shown on a map dated December 20, 2007, revised September 19, 2009 and as described in other application submissions, and to refer the application to the staff and Conservation Commission for review and comment. MOTION PASSED UNANIMOUSLY.

Public Hearing:

W1438- Beall & Higgins- Wormwood Hill Road-Single Family House in Buffer

Chairman Favretti opened the Public Hearing at 7:15 p.m. Members present were Favretti, Gardner, Hall, Holt, Kochenburger, Plante, Ryan, and alternates Beal, Lombard and Lewis. Beal and Lewis were appointed to act. Grant Meitzler, Wetlands Agent, read the legal notice as it appeared in the Chronicle on 9/22/09 and 9/30/09. Meitzler referenced the following communications that have been received and distributed to the Agency: a 9-

16-09 copy of the Conservation Commission minutes; a 9-30-09 memo from G. Meitzler, Wetlands Agent; and a 9-30-09 memo from Windham Water Works.

Representing the applicant was Attorney Antoinette Webster, of Kahan, Kerensky & Capossela Law Firm, and Norm Thibeault, of Killingly Engineering. Thibeault's plan depicted the limited activity within the 150' wetland setback on a map dated 5-26-09. He noted there are no changes to the plans that were previously submitted and approved by this Agency, adding that they are here not because they feel there is any impact, but because of a clerical error and the applicant felt that in the best interest of the public they should hold a public hearing. Thibeault reviewed the statutes that define significant impact and his determination that there are none on this site and reviewed the plans in detail. Thibeault read into the record and submitted for the file a 9-8-09 report from John Ianni, Professional Soil Scientist, as well as a Septic System Nitrogen Renovation Analysis.

Plante asked Thibeault what the sight line distances are from the driveway to the east and west. Holt questioned if the applicant had considered a conservation easement on the property abutting the existing conservation easement of the Green Estate.

Representing the abutter was Attorney Matthew Willis, of Branse, Willis and Knapp Law Firm, and Donald Aubrey, of Towne Engineering. Aubrey distributed a 10-1-09 letter and a marked up set of plans. Aubrey discussed at length the water run-off problem the abutters have and stated that it could worsen with the effects of this proposal. He requested at a minimum the abutters install extra erosion and sediment control measures to protect the neighboring property and wetlands.

Holt noted that Aubrey suggested a conservation easement in the same location she questioned.

Thibeault disagreed with Aubrey's statements that there are any significant drainage or water run-off issues. He and Attorney Webster consulted with the applicant and had no objection to installing extra erosion and sediment control hay bales on the upward side of construction, and extra crushed stone at the footing drain outlet, but they were not open to a conservation easement as proposed by Aubrey. Webster stated that the applicant's design was to minimize the effects to the natural character of the lot and did not feel that a conservation easement was necessary or appropriate.

Penn Handwerker, an abutter, asked if the applicant's engineer is wrong in his calculations, who will be responsible for the expenses to correct possible water damage on his property? He requested, at a minimum, treatments of the land to minimize the impact the drainage may have on his property.

Hall questioned Handwerker if there were problems on his property during this summer's heavy rains.

Attorney Webster summarized the applicant's proposal and the additional measures they are willing to include for erosion and sediment control.

Meitzler stated that he would like to revisit the site and investigate some of the claims made by Aubrey and report back to the Agency at a Special Meeting on 10/19/09.

Chairman Favretti noted no further comments or questions from the audience or the Agency, and declared the public hearing be continued to a Special Meeting on 10/19/09..

Field Trip: A field trip date was set for 10/15/09 at 1:30 p.m.

Reports of Officers and Committees: None noted.

Other Communications and Bills: Noted.

Adjournment: The meeting was adjourned at 8:35 p.m.

Respectfully submitted,
Katherine K. Holt, Secretary

MINUTES

MANSFIELD INLAND WETLAND AGENCY/PLANNING AND ZONING COMMISSION

FIELD TRIP

Special Meeting

Thursday, October 15, 2009

Members present: R. Favretti, K. Holt, B. Ryan (items 1, 2 & 3)
Staff present: G. Meitzler, Wetlands Agent, Assistant Town Engineer
G. Padick, Director of Planning

The field Trip began at 1:40 p.m.

1. PESARO'S LLC, PROPERTY, 153 North Eagleville Road. PZC File #585-3
Members were met by M. Hirsch. Site and neighborhood characteristics were observed. No decisions were made.
2. KOVAROVICS PROPERTY, Daleville Road. IWA File #W1439
Members reviewed plans for revising a previously approved plan for a new house, driveway and associated improvements. Site and neighborhood characteristics were observed. No decisions were made.
3. CHUCK'S MARAGARITA GRILL, 1498 Stafford Road. PZC File #303
Members were met by M. Galliger of Chuck's Margarita Grill. Plans for the proposed deck were reviewed and site and neighborhood characteristics were observed. No decisions were made.
4. CHEW PROPERTY, 16 Thornbush Road. IWA File #1440
Members were met by Mr. Chew. Site and neighborhood characteristics were observed. No decisions were made.
5. FORMER MOBILE SERVICE STATION SITE, 7 Storrs Road. IWA FILE #1441
A plan depicting proposed testing locations was reviewed. Site and neighborhood characteristics were observed. No decisions were made.

The field trip ended at approximately 3:20 p.m.

Respectfully submitted,

K. Holt, Secretary

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DRAFT MINUTES
MANSFIELD INLAND WETLANDS AGENCY
Special Meeting
Monday, October 19, 2009
Council Chambers, Audrey P. Beck Municipal Building

Members present: R. Favretti (Chairman), B. Gardner, J. Goodwin, R. Hall, K. Holt, P. Kochenburger, B. Pociask, B. Ryan
Members absent: P. Plante
Alternates present: M. Beal, G. Lewis, L. Lombard
Staff present: G. Meitzler (Wetlands Agent), G. Padick (Director of Planning)

Chairman Favretti called the meeting to order at 7:02 p.m. Alternate Lewis was appointed to act in Plante's absence.

Public Hearing Continuation:

W1438- Beall & Higgins- Wormwood Hill Road-Single Family House in Buffer

Chairman Favretti opened the Public Hearing at 7:03 p.m. Pociask disqualified himself. Members present were Favretti, Gardner, Goodwin, Hall, Holt, Kochenburger, Ryan, and alternates Beal, Lombard and Lewis. Lombard and Lewis were appointed to act. Grant Meitzler, Wetlands Agent, referenced the following communications that have been received and distributed to the Agency: a 10-14-09 memo from G. Meitzler, Wetlands Agent; a 10-6-09 set of revised plans; a 10-6-09 letter from D. Baxter; a 10-08-09 letter from G. Dunne; a 10-12-09 letter from S. Lehman; and a 10-19-09 from J. Nevers.

Greg Glaude, L.S., of Killingly Engineering, reviewed the 10-19-09 set of revised plans he distributed tonight and indicated that these plans include revisions based on concerns expressed by the neighbors at the 10/5/09 start of the Public Hearing. Glaude read into the record a letter from Norm Thibeault, Killingly Engineering, dated 10-19-09, and he submitted a copy for the file.

Representing the abutter was Attorney Matthew Willis, of Branse, Willis and Knapp Law Firm, and Donald Aubrey, of Towne Engineering. Aubrey reviewed the extra protections his client would like to see in place on the down-gradient side of the project site.

Lisa Paine, Brookside Lane, spoke in favor of the applicants' proposal, noting that the applicants are both conscientious of the environment and wish to leave a "lesser carbon footprint."

J. C. Beall, applicant, stated that they have no intention of clearing the lot anymore than is necessary to build the house, and noted that they have done all they can within reason to preserve the property.

Gardner asked about removal of the stone walls and was told that they are to remain in place.

Attorney Antoinette Webster, representing the applicants, stated that in the spirit of cooperation the applicants have gone above and beyond the requirements, and revised the plans to address extra concerns raised by the neighbors.

Chairman Favretti noted no further comments or questions from the audience or the Agency. Beal MOVED, Holt seconded, to close the Public Hearing. MOTION PASSED with all in favor except Pociask who was disqualified. The hearing was closed at 7:30 p.m.

Holt MOVED, Hall seconded, to grant an Inland Wetlands License under Section 5 of the Wetlands and Watercourses Regulations of the Town of Mansfield to J. C. Beall and Katrina Higgins (File W1438), for a single-family residence with on-site well and septic system, on property owned by the applicant, located on

Wormwood Hill Road, as shown on a map dated May 26, 2009, revised through October 19, 2009, and as described in other application submissions.

This action is based on a finding of no anticipated significant impact on the wetlands, and is conditioned upon the following provision being met:

1. Erosion and sedimentation controls shall be in place prior to construction and maintained during construction and removed when disturbed areas are completely stabilized.
2. The final plan shall show a non-erodible driveway surface to be approved by the Inland Wetlands Agent.
3. It is recommended that a rain garden be considered for the treatment of water from roof drains if such installation is practical in the area between the house and the road. This shall be determined by the Wetlands Agent at the time the yard area is being finished. A copy of the UConn Cooperative Extension System publication on rain gardens is available in the planning office.

This approval is valid for a period of five years (until October 19, 2014), 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 Pociask who disqualified himself.

Adjournment:

The meeting was adjourned at 7:38 p.m.

Respectfully submitted,

Katherine K. Holt, Secretary

Town of Mansfield
CONSERVATION COMMISSION
Meeting of 21 October 2009
Conference Room B, Beck Building
(DRAFT) MINUTES

Members present: Quentin Kessel, John Silander, Joan Stevenson and Frank Trainor. *Members absent:* Robert Dahn, Peter Drzewiecki, and Scott Lehman. *Others present:* Grant Meitzler (Wetlands Agent).

1. The meeting was **called to order** at 7:35p by Chair Quentin Kessel
2. The draft **minutes of the 16 September 09 meeting**, were unanimously approved, as written by Lehmann and edited earlier by Silander, on a motion made by Stevenson and seconded by Silander.

3. IWA referrals

W1439 (Kovarovics, Daleville Road, driveway relocation). This is a marginal lot for which the applicants have already gone to the ZBA for permission to move the house closer to the road (further away from the wetlands). The only change being requested now is to relocate the driveway from the north end of the house to the south end, in order to have a safer driveway entrance. The new location will place portions of a paved driveway approximately 26 feet from a wetland, as opposed to the previous distance of 68 feet. This may result in additional runoff entering the wetland and therefore result in some negative impact. The CC suggests that a permeable surface be considered for this driveway to mitigate the impact of sheet runoff into the nearby wetlands. The siltation and erosion controls shown on the map should be in place during construction and removed after the site is stabilized. The motion made by Silander, and seconded by Trainor, passed unanimously.

W1440 (Chew, Thornbush Road, house addition and shed in buffer). Silander moved, and Trainor seconded, that there should be no significant negative impact on the wetlands if siltation and erosion controls (not shown on the map) are utilized where necessary. The motion passed unanimously.

W1439 (Kleinfelder/Mittleman, 7 Storrs Road, site investigation). The CC is pleased to see responsible action being taken on the closing of this gas station. The CC would like to be copied on the results of this investigation. Trainor moved, and Stevenson seconded, that there should be not significant negative impact from this testing. The motion passed unanimously.

4. Election of Officers. The slate of Quentin Kessel for chair, Scott Lehmann for secretary, and John Silander for vice chair, was moved by Trainor, seconded by Stevenson, and passed unanimously.

5. Pond Place Student Housing Project. It was reported that the owners of 2 or 3 residential wells in the area, as well as the Carriage House Apartments, had been contacted with regard to having their wells monitored, implying that the drilling and testing for a source of water for this project is moving forward.

6. UConn/DEP drainage agreement. The Commission reviewed the "MEMORANDUM OF AGREEMENT BETWEEN THE [THE] DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE UNIVERSITY OF CONNECTICUT," distributed with the CC packet. Of special concern is the portion of the plan to divert storm water runoff from 55 acres

from the Eagleville Brook and the Willimantic River watershed (not a public water supply watershed) into the Fenton River Watershed (a public water supply watershed). The purpose of this diversion is to lower the TMDL level of a complex array of pollutants in a portion of Eagleville Brook. It was noted that this would be at the expense of the water quality in the public water supply watershed and seemed contrary to the good practices the University has implemented over the years and also contrary to common sense. The Commission reviewed the rough draft of a letter by Kessel to the DEP on this matter (below) and agreed to the University's Rich Miller's offer to meet with us to explain their rationale.

Adjourned at 8:45 P.M.

Quentin Kessel, Secretary *pro tem*, 22 October 09

Memorandum:

October 28, 2009

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.

Bell - Bassetts Bridge Rd - Garden Center

- 11.18.08: No change - site appears closed for the winter.
- 12.08.08: Light snow cover. No site work in progress.
- 1.08.09: Snow cover frozen. Site inactive.
- 2.17.09: No change.
- 4.01.09: Selective logging operation in progress in wooded areas away

from the nursery operation. A few loads of wood chips are being spread along edges of ponded area.

- 4.14.09: As previous, preparations for opening plant sale areas are in progress.
- 5.08.09: They are open for the season and the site is in good shape.
- 6.10.09: Site remains in good shape.
- 7.16.09: Site remains in good shape.
- 8.12.09: Site remains in good condition.
- 9.14.09: Site is in excellent condition.
- 10.27.09: Site is in excellent condition.

Mansfield Auto Parts - Route 32

- 11.14.08: Inspection - no vehicles are within 25' of wetlands.
- 12.08.08: Inspection - no vehicles are within 25' of wetlands.
- 1.16.09: Inspection - no vehicles are within 25' of wetlands.
- 2.24.09: Inspection - no vehicles are within 25' of wetlands.
- 3.06.09: Inspection - no vehicles are within 25' of wetlands.
- 4.14.09: Inspection - no vehicles are within 25' of wetlands.
- 5.11.09: Inspection - no vehicles are within 25' of wetlands.
- 6.10.09: Inspection - no vehicles are within 25' of wetlands.
- 7.16.09: Inspection - no vehicles are within 25' of wetlands.
- 8.12.09: Inspection - no vehicles are within 25' of wetlands.
- 9.14.09: Inspection - no vehicles are within 25' of wetlands.
- 10.27.09: Inspection - no vehicles are within 25' of wetlands.

Memorandum:

October 28, 2009

To: Inland Wetland Agency

From: Grant Meitzler, Inland Wetland Agent

Re: W1439 - Kovarovics - Daleville Rd - driveway modification

plan reference: bearing latest revision date: 9/14/2009

This application requests relocation of the driveway location given earlier approval by the agency on 4/07/08.

That approval had a condition that work be kept at least 25' away from wetlands. (The approval motion was in the 10.05.09 agenda packet).

The relocation requested will place the driveway on the south side of the house with an interior garage. The earlier plan had a pull off driveway area on the north side of the house. The proposed change has kept the driveway 26 feet from the nearest wetlands with a little lawn grading area coming 5 to 10 feet closer. The plan remains the same as previously approved except for the driveway alteration.

The change offers the following advantages:

1. it will eliminate the off street parking and backing movement from the drive.
2. it will move the driveway farther from the curve in Daleville Rd north of the site thus improving sight distance. This sight distance to the north is approximately 250 feet with the approved plan. This sight distance will increase to approximately 390 feet. Sight distance looking south towards Rte 44 is in the vicinity of 1100 feet and will remain ample.

I think the safety issue warrants consideration of this modification.

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Wetlands DRAFT Motion for: Kovarovics

Holt moves and _____ seconds to grant/~~deny~~ an Inland Wetlands License under Section 5 of the Wetlands and Watercourses Regulations of the

Town of Mansfield to Michael & Kim Kovarovics

(file W 1439) for driveway construction in a new location

on property owned by the applicant's

located at Daleville Road

as shown on a map dated 9/14/09, revised through _____

and as described in other application submissions, ~~and as heard at Public Hearing(s) on~~

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

- 1) Appropriate erosion and sedimentation controls (as shown on the plans) shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized;
- ~~2) Maps shall not be signed until all SWP permit requirements have been addressed;~~

Kovarovics

(last) This approval is valid for a period of five years (until November 2, 2014) 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.

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Memorandum:

October 28, 2009

To: Inland Wetland Agency

From: Grant Meitzler, Inland Wetland Agent

Re: W1440 - Chew - Thornbush R - house addition and shed

plan reference: dated 6/22/06, (received 9-28-09)

This application indicates approval is sought for:

1. a 15'x 15' addition to a small house now on the site,
2. a 15'x 20' shed, and
3. reconstruction of an existing shed on the existing concrete foundation.

All of the work is within the 150 foot regulated areas adjacent to wetlands. The wetland here is a fairly large pond towards the rear of the lot. The present structures were built long before there was a wetlands law. This pond has no outlet except in extreme high water times; it reflects the groundwater levels in the adjacent sand & gravel deposits.

The proposed work on the existing shed is consistent with other applications we have had where construction was on an existing foundation and no ground excavation was required. I do not see impact from this part of the proposal. The existing shed scales as 15' from the waterline of the pond.

The house addition and the new shed are 48 feet and 61 feet from the waterline of the pond, respectively. Silt fence erosion protection should be placed downhill of the new work for the house and the new shed and remain in place until the areas have become established.

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Wetlands DRAFT Motion for: Chew

Holt _____ moves and _____ seconds to grant/deny an Inland Wetlands License under Section 5 of the Wetlands and Watercourses Regulations of the

Town of Mansfield to Michael Chew

(file W1440) for construction of a 15 by 15 foot addition to an existing house and a 15 by 20 foot shed

on property owned by the applicant

located at 16 Thornbush Road

as shown on a map dated 6/22/06 and received ~~9/28/09~~ revised through 9/28/09,

and as described in other application submissions, ~~and as heard at Public Hearing(s) on~~

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

1) Appropriate erosion and sedimentation controls (as shown on the plans) shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized;

~~2) Maps shall not be signed until all DEP permit requirements have been addressed;~~

2) Silt fence shall be placed downhill of the new work for the house and the new shed;

3) All outside storage of materials, vehicles, etc., shall be kept at least 25 feet from the pond, to prevent pollution to the pond.

(last) This approval is valid for a period of five years (until November 2, 2014) 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.

Chew

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Memorandum:

October 28, 2009

To: Inland Wetland Agency

From: Grant Meitzler, Inland Wetland Agent

Re: W1441 - Kleinfelder/Mittelman - 7 Storrs R - soil testing

plan reference: 9.18.2009

letter reference: September 24, 2009

The above referenced letter spells out the work proposed and where it fits into a site clean up project on this gas station site.

The work proposed is to be done around two locations - a storage area at the rear of the building, and a storm water outlet location near the north front area of the site.

The work proposed in this application is to provide information on potential contamination in these two areas. The results of this work will add to additional information already collected on the site.

Ultimately, the impact of this work on wetlands will be to improve conditions. In the short term, the application asks approval to do soil and water testing and sampling to ascertain limits of impact from the past use. Minor digging, soil borings for deeper soil samples, and surface water testing in adjacent wetlands are described.

I did receive a telephone call from James Finger, Town Planner and Wetland Agent in Windham, as a result of the notice sent to Windham regarding this application. Mr. Finger communicated Windham's concern for impacts on their town and expressed his hope for speedy approval of this application.

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Wetlands DRAFT Motion for: Kleinfelder

Holt _____ moves and _____ seconds to grant ~~by~~ an Inland Wetlands License under Section 5 of the Wetlands and Watercourses Regulations of the

Town of Mansfield to John Liddon of Kleinfelder

(file W 1441) for investigation of wetland surface-water and sediment sampling

on property owned by Eugene S. Mittelman

located at 7 Storrs Road

as shown on a map dated Sept. 18, 2009 ~~revised through~~ and a letter dated Sept. 24, 2009,

and as described in other application submissions, ~~and as heard at public hearings~~ on _____

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

- 1) Appropriate erosion and sedimentation controls (~~as shown on the plans~~) shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized;
- ~~2) Maps shall not be signed until all DEP permit requirements have been addressed.~~

Kleinfelder

(last) This approval is valid for a period of five years (until November 2, 2014) 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.

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University of Connecticut
Administration and Operations Services

Thomas Q. Callahan
Associate Vice President

October 13, 2009

Grant Meisler
Assistant Town Engineer
Audrey P. Beck Building
Four South Eagleville Road
Storrs, CT 06268

Re: IWA File #1437; Site Plan for Proposed Entrance Modifications, B'nai B'rith Hillel Foundation of Connecticut

Dear Mr. Meisler:

Please accept this letter as the University of Connecticut's approval of the proposed site plan for the above project recently approved by the Town of Mansfield Inland Wetland Agency in the Agency's letter to the applicant dated September 11, 2009. The Inland Wetland Agency's approval was conditioned in part on approval from the University in that portions of the proposed sidewalk and driveway are on University property.

Please feel free to contact me if you have questions or concerns, and thank you for your consideration.

Very truly yours,

cc: Samuel Schrager, Esq.

An Equal Opportunity Employer

352 Mansfield Road Unit 2014
Storrs, Connecticut 06269-2014

Telephone: (860) 486-4340
Facsimile: (860) 486-1070

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September/October 2009

Connecticut Wildlife

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Eye on the Wild

Connecticut Wildlife

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This issue of Connecticut Wildlife contains two feature articles on ospreys. One, written by Wildlife Division photographer Paul Fusco, focuses on the natural history and conservation of these birds in Connecticut. The other is a special report written by Mike O'Leary, which summarizes over 30 years of osprey banding data collected along Connecticut's coastline by the late Jerry Mersereau. Jerry was the subject of an article I wrote for the September/October 2004 issue after I spent a day with him, Greg Decker (Biologist for the Millstone Power Station), and Division biologist Julie Victoria, banding ospreys from Niantic to Stonington. Jerry's passion for birds, particularly raptors, was evident in the time and effort he spent to band and monitor them. He kept meticulous notes of all the birds he encountered, hoping that when some of these birds were encountered again, important information about their life history, such as migration patterns, wintering areas, and longevity, could be obtained. After Jerry's passing in 2005, Mike (who banded hawks with Jerry from 1977-2004) picked up where Jerry left off and continues to band ospreys. He also took it upon himself to summarize all of Jerry's data. His special report provides a picture of the migration routes of Connecticut ospreys, causes of death, survival rates, and more. It also details some of the individual ospreys' stories and leaves us thinking about many unanswered questions.

Speaking of questions, Division staff members have been busy responding to questions and concerns about bats and white-nose syndrome. Some people are finding dead bats and want to know what to do. Others have reported that they did not observe as many bats over the summer as they have in the past. As we head into another winter, not knowing what to expect as white-nose syndrome continues to take its toll on bats and as scientists work diligently to understand this strange, new affliction, we wanted to provide answers to some of the commonly-asked questions. "What You Didn't Know About Bats" dispels some myths, while also relaying useful information about white-nose syndrome and encounters with bats (page 12). Look for these questions and answers to also make their way to the DEP website in the near future.

This issue also contains the annual hunting season outlook for deer, turkey, waterfowl, and pheasant. The report provides details on new regulations, particularly changes in the tagging and reporting of deer and turkey harvests. Be sure to read page 18 and check the website to learn more about the new requirements before heading out this hunting season.

Kathy Herz, Editor

Cover:

Hunters have the opportunity to harvest turkeys during the fall archery and firearms seasons. The hunting season outlook starts on page 16. Results from the 2009 spring turkey season are on page 14.

Photo courtesy of Paul J. Fusco



The Federal Aid in Wildlife Restoration Program was initiated by sportsmen and conservationists to provide states with funding for wildlife management and research programs, habitat acquisition, wildlife management area development, and hunter education programs. Connecticut Wildlife contains articles reporting on Wildlife Division projects funded entirely or in part with federal aid monies.



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CT Partners in Regional New England Cottontail Initiative

Written by the New England Cottontail Project Team

The Wildlife Division recently secured funding to develop and implement a regional initiative to restore 1,200 acres of New England cottontail habitat. This nationally competitive State Wildlife Grant project will involve partnerships with wildlife agencies from Connecticut, New Hampshire, Massachusetts, New York, and Maine. In addition, the Natural Resources Conservation Service, U.S. Fish and Wildlife Service (USFWS), and the Wildlife Management Institute are important cooperators in project administration, private lands habitat restoration goals, planning, and technical assistance.

The primary objectives of the project are to: 1) establish a range-wide recovery committee to coordinate activities between the participating states, federal agencies, and private conservation partners, 2) evaluate state-owned parcels on which to conduct habitat restoration projects, 3) develop state restoration plans and share with stakeholders, 4) conduct restoration projects on state-owned lands, and 5) monitor before and after vegetation response and presence of New England cottontails.

Connecticut's target goal is to restore 150 acres of New England cottontail habitat on state-owned properties. These sites will serve as demonstration areas and as "core" locations from which populations can expand onto surrounding privately-owned parcels. Associated funding will be made available for interested private landowners to become active partners in this project.

The New England cottontail is considered a species of greatest conservation need and it is the only cottontail rabbit native to Connecticut. It is medium-sized with a brown or buff-colored coat. Another similar species, the eastern cottontail, was introduced to New England during the 1900s and is the only other cottontail found east of the Hudson River. Although there are physical differences in body size, shape of ears, and a white spot versus a black spot between the ears, the differences are subtle and can be unreliable. To confirm identification of New England cottontails, DNA testing must be conducted. There also are differences in habitats between these two rabbits. Eastern cottontails are found on lawns, golf courses, and active agricultural lands, while New England cottontails are more

dependent on early successional habitats, such as idle farmlands, old fields, regenerating forest stands, and dense thickets of shrubs. Threats to early successional habitats include urban/suburban development, lack of disturbance in forested areas, and fire suppression.

A petition to list the New England cottontail as threatened or endangered and to designate critical habitat under the federal Endangered Species Act was filed in 2008. The USFWS designated the New England cottontail as a candidate for threatened and endangered status in September 2006.

This regional habitat restoration initiative is one major component of a strategy to restore and secure New England cottontail populations in Connecticut and throughout the Northeast. Activities will include reclaiming old field sites, control of non-native invasive plants, and clearing forested areas to encourage regeneration of plants less than three inches in diameter, thus providing the dense thickets of cover required by New England cottontails. The early successional habitat activities also will benefit a large array of species, including at least 70 species of butterflies and moths, three species of beetles, 40 species of birds, three species of amphibians, 11 species of reptiles, and nine species of mammals.

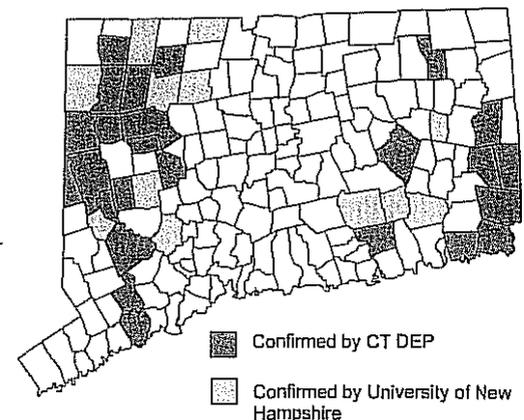
Based on assessments of distribution, movements, and survival of cottontails during 2000-2008, researchers from the Division and the University of New Hampshire have identified 38 towns occupied by New England cottontails in Connecticut. The largest, contiguous region of towns (24) occupied by New England cottontails is along the Housatonic River in western Connecticut. Within this region, four state-owned parcels have been identified, all of which have been confirmed to be occupied currently or historically by New England cottontails.

The Wildlife Division is actively engaged in conducting activities required under this project. In the early phases, the Division has:

- Selected seven habitat project sites, ranging in size from 10 acres to 54 acres for a total of 195 acres, within Housatonic River WMA, Roraback WMA, Goshen WMA, and Camp Columbia State Forest;
- Mapped four sites using GIS/GPS software;
- Conducted forest stand inventories and drafted cutting plans for two areas;
- Developed a monitoring protocol and have conducted both species and vegetation surveys at selected sites; and
- Conducted one 12-acre forest harvest in partnership with the Connecticut Woodcock Council, Wildlife Management Institute, and the Beardsley Zoo.

Over the next three years, staff will be implementing habitat restoration projects on state-owned lands, conducting landowner workshops, and developing partnerships with federal agencies in an effort to expand capabilities onto critical privately-owned parcels.

New England Cottontail Confirmed Towns in Connecticut



Potential Sites for New England Cottontail Habitat Restoration Efforts in Connecticut

Site	Town	State-owned lands	Size (acres)	Population Confirmed on State Land Area
1	Goshen	Goshen WMA	967	Yes (2001)
2	Kent	Housatonic WMA	556	Yes (2002)
3	Harwinton	Roraback WMA	1,975	Yes (1985)
4	Morris	Camp Columbia SF	600	Yes (2007)

Early Successional Shrubland Bird Monitoring:

State WMAs May Be Key to the Future of Shrubland Birds in Connecticut

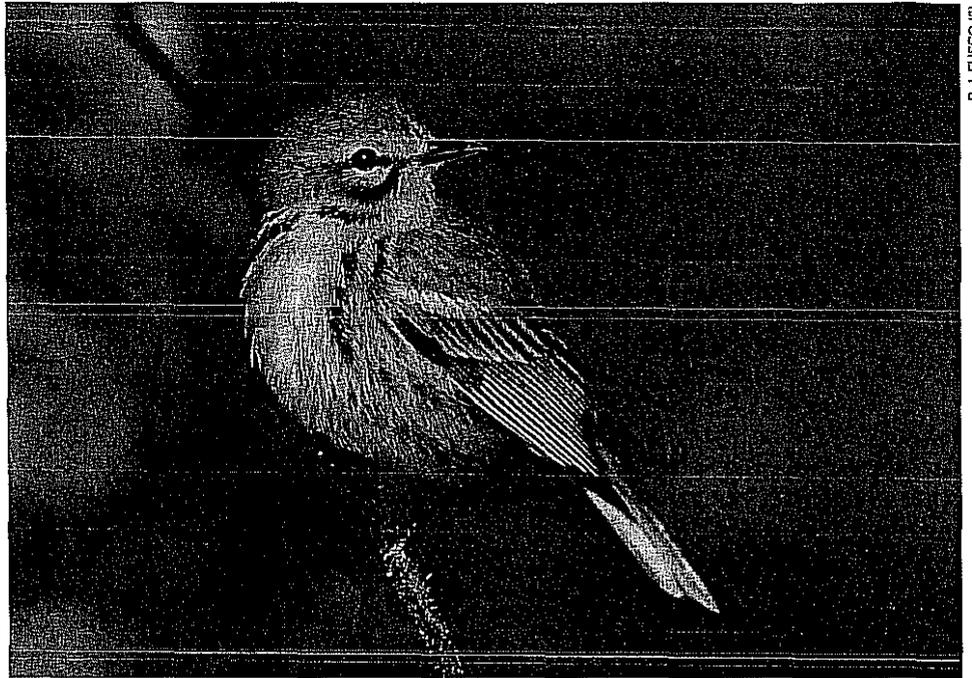
Written by Shannon Kearney-McGee, Bird Program

Early successional shrubland habitat is comprised primarily of shrubs, such as alder and dogwood species, as well as seedling to young sapling forest stands. Early successional shrublands generally occur when mature forest canopy is disrupted, allowing sunlight to reach the ground and thus promoting growth of herbaceous and woody vegetation. In the past, early successional habitat was created and maintained through natural disturbances, such as fires, flooding, beaver activity, and blow downs from storms. The habitat also has been created and maintained through human disturbances, such as agricultural activities and timber harvesting.

Historically, early successional shrubland habitat in New England would have been most common in the southern part of the region along the coast. Today, these sections of Connecticut are heavily developed and opportunities for natural disturbance have been controlled. Fire and flooding are controlled, agriculture is declining, and clearcut timber harvesting has decreased in size and frequency throughout the state. Currently in Connecticut, early successional habitat is found primarily along utility right-of-ways, in wildlife management areas, and in forests where timber harvests have been conducted. Some natural disturbances also have resulted in the creation of shrubland habitat, such as blow downs or beaver activity. Precise estimates of how much early successional habitat still exists in Connecticut are not available, and only the areas that are actively managed can be expected to exist into the future.

Many bird species use early successional shrubland habitat at some point in their life, but there is a group of about 40 birds that relies specifically on early successional shrubland habitat for breeding. These are shrubland habitat specialists, and they include state-listed species, such as golden-winged warbler, brown thrasher, and yellow-breasted chat, and other regionally-declining species of greatest conservation need, such as blue winged warbler, field sparrow, eastern towhee,

Data from the shrubland bird surveys show that field sparrows (middle) prefer dry shrubland and meadow sites, while eastern towhees (bottom) were most likely to be found in utility right-of-ways, dry shrublands, and forest clearcuts.



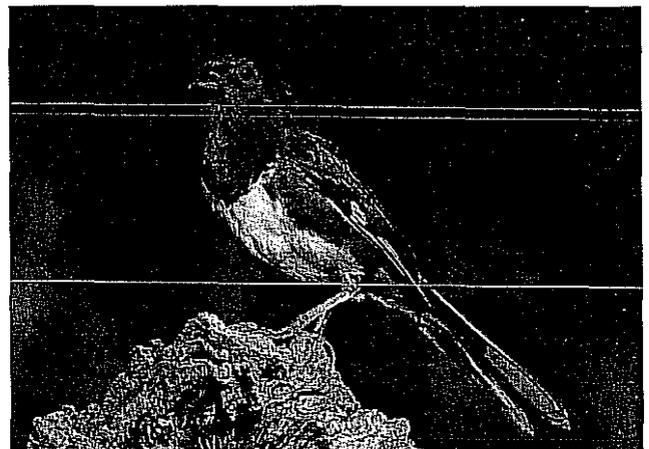
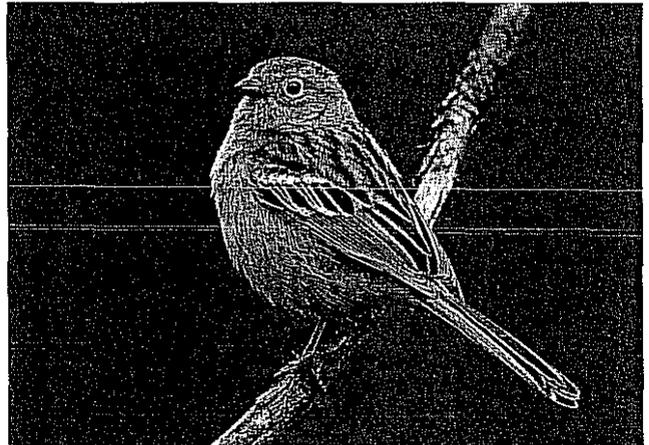
P. J. FUSCO (3)

According to data collected during shrubland bird surveys at state wildlife areas, prairie warblers were primarily found in dry shrublands and utility right-of-ways in patchy landscapes.

and prairie warbler. Once the structure and species composition of the habitat changes through continued succession, these habitat specialists disappear from the site. This disappearance happens within a decade after disturbance.

It is not surprising, given their habitat requirements and the rate of decline of this habitat, that 80% of the total species that rely on shrubland habitat are experiencing some sort of regional or national decline. According to Breeding Bird Survey data, eastern towhee and brown thrasher population estimates have declined by over 90% since the 1960s.

Because of observed population declines and the importance of early suc-



cessional shrubland habitat management to the continued existence of this group of species, the Wildlife Division conducted bird surveys in early successional shrubland habitat across the state. These surveys were designed to obtain baseline data on species occupancy of managed properties. Surveys were conducted, with the help of volunteers, at 35 properties and WMAs around the state between 2005-2008. During these surveys, the top species observed at the most sites were gray catbird, eastern towhee, blue-winged warbler, and Baltimore oriole. Each of these species is of regional conservation concern. The surveys also were able to detect state-listed species, including alder flycatcher, brown thrasher, sedge wren, and golden-winged warbler.

Data collected from the surveys are currently being compiled and analyzed to understand the abundance and preferred habitat characteristics of selected shrubland specialists: eastern towhee, field sparrow, prairie warbler, and yellow-billed cuckoo. Populations of the first three species are declining rapidly within the Northeast, and a large portion of their populations are present in southern New England. The yellow-billed cuckoo was included in this analysis because of a lack of understanding regarding their habitat preferences. There were not enough data to conduct an analysis of rare state-listed species, such as golden-winged warbler or brown thrasher.

Data also were examined to determine if the targeted species demonstrated any evidence of habitat preference. Site presence data were analyzed to determine if any species had a disproportionate presence in certain habitats; any indication of preference for the patch size, shape, and isolation from other patches; and whether the presence of development around the managed patch deterred presence. Also, species presence was tested for its relationship to percentages of herbaceous, shrub, or tree cover.

Eastern towhee was estimated to occupy 68% of the survey locations. Its habitat preferences were similar to those found in other studies. Towhees were most likely to be found in utility right-of-ways, dry shrublands, and forest clearcuts. They were present more frequently at sites with tree cover between 20-40% and were not completely absent



P. J. FUSCO

According to Breeding Bird Survey data, brown thrasher (above) and eastern towhee population estimates have declined by over 90% since the 1960s.

from sites with surrounding development.

The field sparrow was estimated to occupy 35% of the survey sites, preferring dry shrubland and meadow sites. Field sparrows were detected most often in patches that were separated by forest, echoing the published preference for a "patchy landscape" or an area that has a lot of openings scattered throughout forest blocks. Field sparrows also preferred sites with relatively low shrubby cover (<20%), a good deal of herbaceous cover (>80%), and very little tree cover (<10%). They were not absent from sites with surrounding development.

The prairie warbler was estimated to occupy about 25% of the survey sites. As demonstrated by other studies in Connecticut and Massachusetts, the prairie warbler avoided sites with surrounding development. Birds were primarily found in dry shrublands and utility right-of-ways in patchy landscapes.

The yellow-billed cuckoo was estimated to occupy 29% of the survey sites. Birds were found primarily in medium-sized patches between six and 40 acres, with less than 20% shrub cover, and they were not absent from sites surrounded by development.

None of the target species demonstrated any declining or increasing trend in occupancy over the four years of monitor-

ing. This is good news from a management perspective, because it means that although these species are decreasing regionally, they are not disappearing from managed state properties. However, the full picture is not yet available because presence of the target species at a site does not necessarily mean that there is productive habitat. Recent research conducted by Connecticut College has revealed that nesting success in utility right-of-ways can be deleteriously affected by the amount of development surrounding the right-of-ways. It is not enough for the birds to be returning year after year. These birds also need to produce enough young to sustain a future population. Currently, there is a lack of data on how well the species are surviving and reproducing on Connecticut's managed properties. This information is vital to planning management activities for sustaining these early successional shrubland specialists. The Division plans to initiate monitoring to understand the corresponding productivity and survival on managed properties in the near future.

This project was funded through the State Wildlife Grants program and was conducted with the assistance of the following staff and volunteers: David Bingham, Dan Britton, Mike Cunha, Corrine Folsom, Laurie Fortin, Nicki Hall, Sam Slater, Shannon Kearney-McGee, Erin King, Geoff Krukar, Celia Lewis, Orla Malloy, Ben Mazzel, Gretchen Nareff, UConn Summer Ornithology Class 2007, Daria Protopopova, Laura Saucier, Rebecca Schwartz, Jane Seymour, and Anthony Zemba.

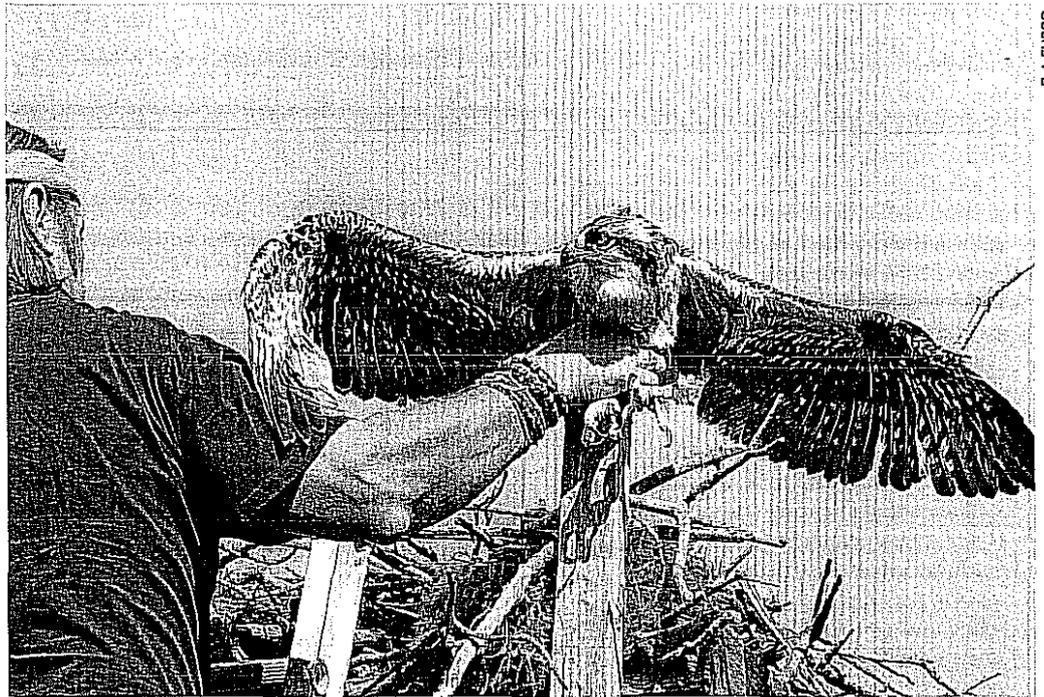
There is a group of about 40 birds that relies specifically on early successional shrubland habitat for breeding.

Banding Data Provide Insight into Connecticut's Ospreys

Special Report by Mike O'Leary, Volunteer for the DEP Wildlife Division

The late Jerry Mersereau, an avocational ornithologist and avid bird bander, placed identifying leg bands on thousands of birds, mainly raptors, over several decades. He was well known by Wildlife Division staff and in birding circles as a resident expert on ospreys (see the September/October 2004 issue of *Connecticut Wildlife*). Jerry spent more than 30 years monitoring Connecticut's osprey population since it was first noticed in the 1960s that eggs were not hatching and osprey numbers were plummeting. Fortunately, Jerry was able to witness the remarkable recovery of the osprey population before his sudden death in 2005.

Jerry left behind 18 notebooks filled with his important banding data. With the help of Danny Bystak at the U.S. Fish and Wildlife Service Bird Banding Lab, I was able to obtain the complete record of Jerry's osprey banding in Connecticut – his totals and band return information. All of the banding took place in the 56 miles of the Connecticut shoreline from the Quinnipiac River to the Rhode Island line and a few miles up the waterways. This is a tiny piece of the world, but the returns are extensive. Thanks also to Division biologist Min Huang, I was able to analyze all of the Connecticut bird banding records from 1980 to present. The records contain every reported leg band encounter of any species from state banders and also any "foreign" bands recovered in Connecticut. I used Jerry's notebooks to complete the osprey picture



Volunteer Mike O'Leary returns a young osprey to its nest after bands were placed on its leg. During banding efforts, Mike often climbs the ladder to retrieve the young birds from the nest and returns them after they have been banded.

back to 1961. Using all of these numbers, Jerry's 18 notebooks, and totals of ospreys I have banded from 2006-2008, the Connecticut osprey picture from 1961 to the present is as complete as possible. But, the paint isn't yet dry.

Jerry banded exactly 2,000 ospreys in Connecticut (plus 4 in New York) from 1961-1971 and 1982-2004. From 2006-2008, I added 146. Of those 2,146 ospreys, 112 were encountered for a return of 5.2%. Some of those ospreys were encountered more than once. Therefore, there is a total of 120 pieces of information to use.

Connecticut were recovered not only in our state but in several other states and countries (Table 1). The majority of the ospreys that were encountered (115) were banded as hatchlings (sex unknown), while 5 females were banded as adults.

The migration destination of most of Connecticut's ospreys is northern South America, as far as the equator and beyond. The data collected from Connecticut suggest that most of our ospreys migrate along the East Coast of the United States, plus the Florida peninsula and Cuba. Three routes between Cuba and South America are used: one to the east around the Caribbean to Haiti and the Lesser Antilles; one to the west around the Caribbean to Central America; and one directly south across the Caribbean. There is no proof for the third route, but it is within the osprey's ability. The 2 Bahama band returns suggest a different route entirely – departure from Connecticut to a direct flight over the western Atlantic to the Bahama Islands. Some of the ospreys might winter there or some might fly to Cuba. Two other variations have a little evidence – some may overwinter in Florida and Cuba. Midwinter band recoveries from both places make it likely.

Evidence regarding nesting behavior

Table 1. Osprey Band Recoveries by Location

Connecticut	53	Bahama Islands	2
New York	14	Cuba	8
Florida	5	Columbia	4
Massachusetts	4	Brazil	3
New Jersey	4	Venezuela	2
Pennsylvania	4	Dominican Republic	1
Maryland	3	Ecuador	1
South Carolina	3	Haiti	1
North Carolina	2	Honduras	1
Georgia	1	Lesser Antilles	1
Maine	1	Panama	1
Rhode Island	1		
Totals	95		25

Breaking Down the Data

Of the 120 reports of ospreys banded by Jerry, 87 were dead, 28 were alive, and 5 were unknown. Fifty-three of the 87 dead ospreys were recovered in Connecticut. Leg bands placed on ospreys from

is a little more conclusive. Some of our local ospreys eventually return to nest on Long Island in New York, evidenced by very patient leg band reading by a telescope at Shelter Harbor. A few relocate and set up nests in Rhode Island and southeastern Massachusetts. There is positive evidence from Jerry's early and mid-1960s trapping and retrapping of nesting adult ospreys that they will use the same nest from year to year with the same mate. But, they will also use a nearby nest or will nest with a different mate. Jerry determined that nestlings from Connecticut will return to the state in two years, not one.

In addition to the 112 "native" Connecticut ospreys recorded around the Western Hemisphere, 8 "foreign" ospreys were recovered in the state. All 8 were banded as nestlings: 4 from Massachusetts, 2 from New Jersey, 1 from Maryland, and 1 from New York. It seems that Connecticut and its increasing and well-maintained platforms have attracted some of these outsiders. The Massachusetts bands could have come from migrants, but the other ospreys were encountered during the nesting season and were at the right age. The Maryland osprey was captured alive in Connecticut (due to an injury) at age 10 in early August 2008. The two New Jersey bands were recorded in April 1999 at age 2 and July 1990 at age 11. The bird banded in New York was most likely nesting in Connecticut because it was found dead in June 1982 at age 3 after being hit by an airplane at the Groton-New London Airport.

For the 87 dead ospreys, the recovery time was as short as 17 days and as long as 15 years, 2 months. The average was 3 years, 5 months. Thirty-two of the 87 died in less than 1 year; 17 of those wore the band less than 2 months. Most of the ospreys were found dead (51); the cause of death could be determined for some of the birds (Table 2). All 87 had been banded as nestlings.

The 28 ospreys encountered alive included 5 that were in captivity and 23 that were free at the time of reporting. Seven were trapped at a banding operation in the same latitude and longitude and released, 4 were trapped at a banding operation in a different latitude and longitude and released, 1 was caught in a non-bird trap, 8 were caught due to injury, 1 struck a tower or wires, 1 was struck by a motor vehicle, and 6 bands were read with optics. The encounter time for these live ospreys was as quick

as 60 days after banding and as long as 17 years, 2 months. The second longest was 15 years and the average was 4 years, 7 months. Five unknowns had dates and locations recorded, but the finder failed to report the condition of the osprey.

Of the 11 ospreys that were shot 3 were from Brazil, 3 from Cuba, 2 from Venezuela, and 1 each from Columbia, the Dominican Republic, and Ecuador. Seven of these birds were shot in winter, and four of the encounters were from south of the equator in Brazil and Ecuador. The osprey caught and released from a non-bird trap was in Cuba.

The 5 encounters in Florida suggest that Connecticut's ospreys use that state for fall migration and as a winter residence. Three encounters were from late summer to fall. Two reports appear to be from wintering birds. One, which was found dead in the Florida Keys in April 1995, was banded in Connecticut as a nestling in June 1994. Young ospreys, like this one, do not return to their birthplace until they are 2 or even 3 years old. The other bird, which died of an injury in February 1998 near Palm Beach, hatched in Connecticut in 1995. Encounters of Connecticut-banded ospreys in Cuba during August, September, October, and March suggest that the country is on a spring and fall migration route.

An Unusual Find

Of all the data reported on the banding sheets, the most unusual was band

Table 2. Causes of Death for Ospreys Banded in Connecticut

Found Dead	51
Shot	11
Struck a Tower or Wires	5
Hit by Train	4
Died from Injury	4
Struck by Aircraft	2
Struck by Automobile	2
Died of Starvation	2
Band on a Skeleton	2
Hit by Farm Machinery	1
Died of Disease	1
Caught by Hand	1
Found Dead in Building	1
Total	87



Mike O'Leary has been involved with banding ospreys and other raptors in Connecticut since 1977. Mike has undertaken a huge effort to summarize osprey banding and return data collected since the early 1960s.

#518-69486. Jerry put it on a nestling in June 1968 at Great Island. The nestling had hatched from an egg that was transferred from Maryland in an insulated suitcase heated by a hot water bottle. It was part of the successful transplant plan to reestablish Connecticut's osprey population after it was heavily impacted by organochlorine pesticides. Jerry worked closely with Peter Ames, Paul Spitzer, and Roger Tory Peterson on the transplanting of eggs and chicks from Maryland, which were not as badly affected by pesticides as were the Connecticut ospreys. The leg band from this transplanted bird was found in the Bahama Islands and not reported until January 2007.

Multiple Captures

The following 5 ospreys contributed information more than once, hence the total of 120 encounters from 112 birds.

#0518-69475: Jerry trapped this adult female at Great Island in June 1965 as part of the pesticide study. He retrapped it on the same nest in 1967 and 1968 and on a nearby nest in 1970.

#0518-69482: Jerry trapped this adult female in May 1967 on a nest along the Back River in Old Lyme. He retrapped it on a nearby nest in 1968 and 1969.

#0608-56188 was banded as a nestling in Old Lyme in June 1988. It was caught in an animal trap in Cuba in March 1996, and released. However, 3 days later, it was shot while still in Cuba.

#0788-38410 was banded as a nestling in June 1999 at Great Island. The band was read by telescope on the western part of Long Island, New York, in July 2002. It was reported as shot in Brazil in November 2003.

#0608-49291 was banded as a nestling in June 2000 on the Mystic River in Mystic. The band was read by telescope in July 2004, May 2005 (twice), and March 2006, in western Long Island. From Jerry's notes, a nest mate of this osprey appeared to be blind in one eye and was not banded. It showed no reflex or reaction to hand movements.

Returning to Connecticut or Nearby Locations

The month of recovery and ages of the 53 dead, banded ospreys found in Connecticut illustrate some of their summer behavior. Many adult Connecticut ospreys return to the state year after year and use the same nest or a nearby nest – proven by Jerry's trapping and retrapping of adults nesting at Old Lyme. But, what months are they here? One of the 53 dead ospreys was found in March, 7 in April, 6 in May, 7 in June, 13 in July, 10 in August, 6 in September, and 1 in October. Two hatch year band numbers were reported in Connecticut during December – "found dead" and "band number only." Nestlings make up much of the July, August, and September totals.

Leg bands viewed through telescope on birds nesting on Long Island provide evidence that Connecticut ospreys use New York in summer. In addition, 2 adults were trapped and released on the eastern end of the island (June) and 4 were found dead from the central part to the eastern tip (in April, July, August, and September).

Three of the New Jersey encounters suggest that some Connecticut birds use other nearby states during summer: 1 in May and 2 in August. A late August report from New Jersey near Wilmington, Delaware, might have been a southern bound migrant. The Connecticut band reported from Rhode Island was a 3-year-old found dead in late May near Point Judith. In Massachusetts, a 3-year-old Connecticut osprey was trapped and released in May near Dartmouth and a

Table 3. Survival (actual and estimated) of Connecticut Ospreys

Yrs. Elapsed	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Actual Alive	87	59	54	43	31	25	16	15	12	9	6	4	4	4	2	1	0
Math "Alive"	87	59	46	36	28	22	17	13	10	8	6	5	4	3	2	2	1

2-year-old was hit by a train near Southie in August 1990. So, from a few pesticide-laden ospreys surviving in the early 1960s, the present southern New England and Northeast populations seem to have expanded enough to fill a lot of voids.

Survival Rate for CT's Ospreys

With a closed group and precise dates of death for 87 ospreys, a survival rate can be calculated. Survival rate means "what is the chance that something will live to the next year?" The short answer with no mathematical distractions is that a hatch-year Connecticut osprey has a 68% chance of surviving to the next year, or conversely, has a 32% chance of not surviving. The first year is the toughest, which is probably true of most birds. After the first year, the survival rate is 78%. Using a 68% survival rate for the first year and 78% afterward, the mathematical "alive" at each year can be compared to the actual alive (Table 3).

There are so many questions left unanswered. One thing is known for sure, though – since the 1960s, Connecticut's ospreys have survived, recovered, and expanded.

Unusual Encounters

The following reports are unusual. Two questions can always be raised. How long was the bird dead? How long did it take the finder to report the band? Recent satellite studies show a great deal of wandering by some ospreys.

#0518-69469 was banded as a nestling in June 1964 and found near Buzzard's Bay, Massachusetts, in February 1968 – a very early date for a southern New England osprey.

#0788-47791 was banded as a nestling in June 2003 and found dead about 18 miles west of Boston in March 2004. Why was this bird of almost a year old found north of Connecticut? Ospreys do

not return from their wintering areas until they are 2 to 3 years old.

#0608-56289 was banded in July 1989. The only report of the band was from Maine near Boothbay Harbor in July 1999. Could it have been a Connecticut bird nesting in Maine?

#0788-02677 was banded in June 1993 and found dead in Maryland in late May 1997. Was this Connecticut bird nesting in Maryland?

#0788-35639 was banded in July 1999 and found dead in the Bahamas in October 1999. Was it a late migrant or had it stopped to winter there?

#0608-85136 was banded in June 1991 and found dead in Cuba in June 1993. Not all 2-year-old ospreys return to Connecticut. Had this bird resided in Cuba since 1991?

#0608-85098 was banded in June 1991 and found dead in Cuba in July 2001. Why was this 10-year-old bird in Cuba during the nesting season?

Questions

Good data generates questions, not just answers. With ospreys wintering at the equator, what triggers their migration? There are no seasonal or day length changes at the equator! Do any South American ospreys migrate south or nest at the equator? Do ospreys ever make a radical migration change in their lifetime? Osprey parents leave Connecticut before their offspring. How do the young find their way? What if both parents have totally different migration routes and winter destinations? Did the introduction of the Maryland DNA into Connecticut's population in the 1960s change anything? There are so many questions left unanswered. One thing is known for sure, though – since the 1960s, Connecticut's ospreys have survived, recovered, and expanded. Birds will continue to be banded and more reports will come in. That is why the paint on the picture is still wet!

Mike O'Leary has volunteered for the Wildlife Division since 1992 banding waterfowl, shorebirds, and woodcock. He also has been involved with the Bald Eagle Study Group since 1979 and banding raptors since 1977. He taught 5th and 6th grade for 32 years in East Windsor before retiring in 2000.

Habitat Restoration Projects at Belding WMA

Written by Jane Seymour, Belding WMA Steward

The DEP is responsible for maintaining a diversity of fish and wildlife habitats at Belding WMA in Vernon. Several management projects are currently underway at the area to benefit special habitats or unique species. For example, American chestnut and pitch pine are found on the property and projects have been implemented to help preserve these rare trees. Active management also is necessary for creating and maintaining grassland habitat at Belding WMA.

American Chestnut Restoration

The DEP, in partnership with the Connecticut Agricultural Experiment Station (CAES), introduced blight-resistant American chestnut trees to the Belding Wildlife Management Area (WMA) in Vernon this past May. The American chestnut was once a dominant tree of the eastern forests. It was an extremely valuable source of lumber as its wood is highly resistant to rot. In addition, chestnuts produced edible nuts that were an important food source for wildlife. Unfortunately, a non-native, imported fungus, discovered in New York City in 1904, spread quickly and decimated American chestnuts throughout their range. The blight cannot exist in the soil, so even though it kills the trees, it does not kill the roots. Many of these persisting roots continue to grow new sprouts, but the sprouts become infected by the blight and die before reaching maturity.

Dr. Sandy Anagnostakis of the CAES has been breeding blight-resistant American chestnuts as part of an effort to save this tree from extinction. The DEP planted 200 of these seedlings on a 2.5-acre site within Belding WMA where native chestnut sprouts are abundant. The abundance of native chestnut sprouts on the site is a critical factor in the reestablishment of this valuable species as a key component of Connecticut's forested landscape. The native sprouts will be inoculated against the blight until they reach maturity and can cross-pollinate with the blight-resistant seedlings. The offspring of these crosses will result in trees that are genetically similar to the trees that were native to the site, but will also carry the genes that resist the blight.

Because American chestnut seedlings require full sunlight, the overstory trees on the restoration site were cleared



J. SEYMOUR, HABITAT MANAGEMENT PROGRAM

Pamela Sletten of the Connecticut Agricultural Experiment Station inoculates native American chestnut sprouts at the Belding Wildlife Management Area in Vernon. The native sprouts will be inoculated until they reach maturity and can cross-pollinate with the blight-resistant seedlings that were planted at the site.

by a forestry contractor. As the planted chestnut trees grow, the oaks, maples, and birch will grow up with them, resulting in a more diverse forest.

Pitch Pine Restoration

A project to restore native pitch pines was initiated in 2008. Pitch pine woodland, a globally rare forest type, is found only in the northeastern United States. Pitch pines depend on fire to expose the soil and release the seeds. Due to fire suppression, pitch pine communities have become increasingly rare.

Belding WMA contains mature pitch pines, but young pitch pines have not been able to grow there for more than 50 years. A three-acre site where mature pitch pines are currently growing has been chosen for this regeneration project. In order to restore this unique habitat, common tree species that were competing with the pitch pines have been removed. The soil will be exposed to allow the pitch pine seeds to germinate.

As the seedlings become established, the young stand of pitch pine will provide important cover for species that depend on this type of early successional habitat. Wildlife species associated with this type of disturbance-dependent habitat

include whip-poor-will, prairie warbler, and brown thrasher, a species of special concern in Connecticut.

Grassland Restoration

In 2008, a project was initiated to remove invasive shrubs and increase grassland habitat in the fields along Valley Falls Road. Two hedgerows of trees and invasive shrubs that had grown up between the fields were removed to create one larger field. Larger grasslands attract a wider diversity of wildlife. Twelve species of grassland-dependent birds are on Connecticut's list of endangered, threatened, and special concern species. The most endangered of these birds are those that require large areas. The state-endangered grasshopper sparrow prefers sites of at least 100 acres. Upland sandpipers require grasslands of 150 acres or more.

Hay fields attract grassland ground nesters, but early mowing destroys the nests before the chicks fledge. Lawns, which are mowed regularly throughout the season, are not considered grasslands and provide very little value for wildlife. To maintain grassland habitat, the DEP mows grassland areas after the nesting

continued on page 19

The Remarkable Story of Connecticut's Specialist

Article and photography by Paul Fusco, Wildlife Outreach Program

One of the more remarkable wildlife stories in Connecticut is that of the osprey, also known as the fish hawk. A once abundant bird that was at the edge of being extirpated not too long ago is today in the midst of a huge resurgence. In the 1940s there were over 1,000 breeding pairs of ospreys between New York and Boston, with 200 of those pairs nesting in the lower Connecticut River area alone. By 1974, the number of active nests in the entire state of Connecticut had fallen to nine.

Ospreys are large members of the hawk family. They have long wings and short tails, and they are white below and dark brown above with a brown mask stripe that goes across the eyes. When in flight, their wing profile is often crooked, and, from below, they show a large dark wrist spot on each wing. Ospreys are one of the most widely distributed birds in the world. Their range includes all or parts of all of the continents, except Antarctica.

History

The population reduction was proven to have happened as a result of chemical contamination in the osprey's food source. Chemical contamination caused a thinning of the birds' egg shells, which made the eggs too weak to incubate without having the eggs break. Wide scale reproductive failure resulted and the population crashed over the period between 1950 and 1972. The osprey population turnaround began when the use of certain organochlorine pesticides was banned in the United States, most notably DDT in 1972, dieldrin in 1974, and polychlorinated biphenyls (PCBs) in 1979.

Ospreys in the Northeast were also impacted by limited nesting sites. Historically, ospreys built their nests in dead trees along the shoreline or in wetlands. Standing dead trees were in such short supply in the middle of the last century that many ospreys built their nests on the ground. These ground nests were under increasing assault by an expanding population of raccoons that had a taste for eggs.

To combat these threats and help the osprey population recover, artificial nesting platforms were placed in suitable habitats, mostly marshes along the shoreline. Ospreys adapted readily, and the platforms were quickly proven to provide the birds with a safe place to nest and raise their young successfully. Proper predator guards on the platform poles keep raccoons and other ground predators away.

The osprey comeback has gone through two stages, the banning of organochlorine pesticides and the construction of artificial nest platforms, both leading to a recovering population. A somewhat unexpected third stage in osprey recovery may be taking place today, as range expansion in Connecticut continues. With the building of cell towers in recent years, there has been an opportunity for the birds to further expand their distribution, especially inland. Ospreys seem to have readily adapted to building nests on these tall structures, especially on towers near large bodies of water.



Ospreys can be identified by a ragged crest and a dark mask across the eyes. The eyes in adults are yellow and orange in juveniles. Females have dark streaks on their breast, while males have a clean white chest.

Behavior

Ospreys are specialists in that their diet consists almost entirely of fresh-caught fish. Usually the fish range in size from two to four pounds. Ospreys are impressive while fishing as they will frequently soar over a body of water from heights of 70 to 150 feet, looking down for an opportunity. When a potential victim is seen, they will wheel up and hover over the fish to gauge their attempt before plunging to the water. The dive is done headfirst, with eyes on their target before swinging their feet forward at the last fraction of a second. They grab the fish with their strong feet and talons, then use their six-foot-long wingspan to lift from the water, carrying their prize.

Conservation

While ospreys are presently doing quite well, there are still faced with conservation issues. One is plastics in the environment and another is chemical contamination of the food source. Plastics are pervasive in the modern-day environ-





River herring, shad, and menhaden make up a large part of the osprey's diet in Connecticut. Some of the other fish they will catch include porgy, flounder, bluefish, and striped bass.

ment. From shopping bags and six-pack yokes to fishing gear and tarps, all seem to have ended up at one time or another in the nests that ospreys build. Some of these plastics are inadvertently brought to the nest while the birds are gathering nest material from the shoreline. Other objects seem to be brought to the nest purposefully, as osprey appear to be attracted to colored plastic to use in decorating their nest. Often, their nests contain blue items, including netting, ropes, or tarps. One nest even had a blue teddy bear in it. These plastics are usually harmless, but the potential is there for adults or chicks to become entangled in plastic and, if that happens, the birds will frequently die. This has occurred in Connecticut when birds were caught in fishing line, kite string/parts, and six-pack yokes.

Pesticides and other chemical pollutants are still in the environment and organochlorine pesticides continue to be used in other countries where Connecticut's ospreys may spend the winter. Some

of the fish species that are consumed by ospreys are highly contaminated, such as bluefish and striped bass. There are currently human consumption advisories against contaminants in some of these large fish in our region.

With the osprey's resurgence, the Wildlife Division, together with the help of many volunteers, continues to monitor osprey productivity. Young ospreys in the nest are banded by Division staff, and permits continue to be processed for the installation of artificial nesting platforms. As more ospreys return to our state each year to nest and raise young, it is an indication that Connecticut's environmental quality has greatly improved.

What You Can Do

Anyone that visits the shoreline can help osprey and other wildlife by picking up and properly disposing of trash that gets washed up on the beaches. Fishing line, kite string, and plastics are especially dangerous to wildlife.



In the 1940s, ospreys built their nests on the ground in Connecticut (top). Today, they use artificial platforms and other structures, including cell towers (bottom).

What You Didn't Know About Bats

Written by Christina Kocer and Jennifer Pacelli, Wildlife Diversity Program

Either on television or at the park, we've all seen someone covering their head with their shirt and frantically trying to escape the bat flying overhead! Some of us are that person! Why are so many people completely terrified of these small, furry, flying mammals? The answer is simple, bats are misunderstood. Since the advent of the horror film, bats have been used to set a creepy mood with their erratic flying and sharp teeth exaggerated to frighten us. This portrayal has given these fascinating creatures an undeserved bad reputation. Bats are actually extremely beneficial creatures that should be welcomed and not feared. They need our help now more than ever. For the past two years, bats have been facing one of the largest ecological disasters of our time. White-nose syndrome has been killing hundreds of thousands of bats throughout the Northeast and is spreading at unprecedented rates. Below, you will find answers to many of the commonly asked questions about bats and white-nose syndrome.

Why should I like bats?

Bats are the only significant predator of night-flying insects, like mosquitoes and moths. They provide natural insect control for many of the agricultural pests that can damage crops. One little brown bat can consume 1,200 mosquitoes in one hour!

Do bats really get caught in your hair?

No. Bats may swoop close to your head, but they are not trying to get into your hair. Insects are drawn to humans for many different reasons and any bats flying around your head are actually hunting these irritating bugs. So, you should be happy to see bats circling above! Bats are very agile fliers and they know exactly where you are.

Can bats see?

Yes, bats actually have very good eyesight and rely on their vision for navigation.

How do I know if I have bats in my attic?

You should head outside about a half hour before sunset, pull up a chair, and watch your attic, eaves, and peaks. If bats are roosting in your house, they will come out to forage around sunset.

You also can go into your attic an hour or so after sundown and look for



This photograph shows a typical hibernating bat. However, don't be fooled. This little brown bat is covered with water droplets, NOT the fungus associated with white-nose syndrome. The fungus associated with WNS typically appears on the non-furred parts of the bat, including the nose, ears, and wings. Bats periodically wake from hibernation and drink the water that has accumulated in their fur to rehydrate.

bat droppings, also known as guano. Guano is black in appearance, a little smaller than mouse droppings, and will pile below the roost. Mouse droppings, in comparison will be scattered throughout the runways and paths used by the small mammals. Chattering or chirping sounds during a hot afternoon may also alert you to a large colony in your attic. Bats do not usually scratch loud enough to be heard in the main living quarters of a house. If you do hear scratching in the attic, it is more likely coming from a squirrel rather than bats.

I have bats in my attic, how do I get rid of them?

Excluding bats is the best option. Bats are very beneficial predators of insects, and, therefore, should be protected. To safely and humanely remove nuisance bats from a home, they should be excluded. It is important to give the bats an opportunity to leave your attic on their own at dusk before sealing their access points so that they cannot return. If you simply seal the access points before the bats leave the attic, they will search for another way out and that may lead them

right into your living room! However, it is very important that bats are NOT excluded from their roosts during May, June, or July, even if the roost is your attic, because newborn pups are unable to fly and will become trapped and die (resulting in unpleasant odors and insects).

Poisons should never be used to get rid of nuisance bats. Like humans, bats are mammals and any poison or toxin used to kill a bat can make the humans (and pets) residing in the home very sick. To safely exclude nuisance bats, contact a licensed Nuisance Wildlife Control Operator by consulting the DEP Wildlife Division (860-424-3011; www.ct.gov/dep/wildlife).

What should I do if there is a bat in my house?

If you find a bat flying in your house, don't scream, yell and flail your arms, even if that's what your instincts tell you to do! Stay calm. In the room that contains the bat, you should open a window, remove the screen, and shut the door. Put a towel under the door to make sure the bat doesn't crawl out. Take a deep breath and wait patiently for nightfall. The bat

should leave on its own at night to forage. You can replace the screen and secure the window after the bat leaves.

If you find a bat that is hanging on curtains, a window screen, or ceiling trim, grab a sturdy pair of gloves and a small container – a coffee can or other small container will work well. Slowly approach the bat and gently put the container over the bat, being careful not to pinch a wing. Then, slide a thin piece of cardboard under the container, forming a lid. Once the bat is safely inside the container, bring it outside for release. Often the bat will fly from the container on its own, but if it doesn't, let it attach onto a tree.

Don't all bats have rabies?

Actually, less than one percent of all wild bats are infected with rabies. More people die annually from dog attacks, bee stings, lightning, and household accidents than from bat-transmitted rabies.

Even though rabies is rare in bats, it is important to remember that bats, like any other mammal, still may be a source of this virus. The rabies virus is found in saliva and may be transmitted through the bite of an infected animal. A non-bite exposure can also occur when saliva or brain tissue from an infected animal enters scratches, abrasions, open wounds, or mucous membranes (nose, mouth, eyes).

I was bitten bit by a bat, what should I do?

If you are accidentally bitten while handling a bat, make sure the bat is saved for examination. Immediately wash the bite with soap and water and contact your doctor. Call your local Animal Control office to pick up the bat for rabies testing.

There's a dead bat on my porch, what should I do?

If you find a dead bat, on your porch or anywhere around your home, use a plastic bag and invert it over your hand like a mitten. Carefully pick up the dead bat and pull it into the plastic bag, without touching it. Seal the bag, put it into a second plastic bag, and seal it. You can either put the carcass in the garbage or place the sealed bag into a freezer and call the Wildlife Division's Sessions Woods office at 860-675-8130 (Monday-Friday, 8:30 AM-4:30 PM).

If your pet kills a bat, consult your veterinarian and call the local Animal Control Officer for assistance.

What is white-nose syndrome (WNS)?

This disease is named after the white



C. KOEGER, WILDLIFE DIVERSITY PROGRAM

This shows an example of successful bat boxes. The boxes are facing south to maximize sun exposure, resulting in the high internal temperatures bats need to successfully raise pups. The boxes also are placed at the optimum height - approximately 10-15 feet from the ground. The bat boxes are not the only place bats are roosting; the barn also provides a great roost site. Bats have occupied these boxes and the barn for over 20 years!

fungus found on the muzzles, ears, and arms of hibernating bats. Affected bats may not have the fungus, but may display abnormal behavior. The cause for WNS is still being investigated.

Where did WNS come from?

The first documented case of WNS was found at a commercial cave west of Albany in 2006. Since its discovery, WNS has spread throughout the region, affecting bats from Vermont to West Virginia. Researchers are still working to determine where WNS originated and how it got here. For more information about WNS, visit to the U.S. Fish and Wildlife Service's website at www.fws.gov/northeast/white_nose.html.

How many bats have died in Connecticut?

WNS was first documented in Connecticut during the winter of 2008. Surveys conducted in the winter of 2009 revealed a 80-95% population reduction – affected sites went from having a few thousand bats to having only a few hundred bats in the period of only one year!

I found a bat but I don't see anything white on its face, is it sick?

The fungus associated with WNS is a cold-loving fungus that is only visible during winter, when bats are hibernating and their immunities are suppressed.

Once bats awake from hibernation, their body temperatures rise and they groom the fungus away so it is very unlikely that you will find a bat with visible fungus. Because bats can roost in small, tight corners of buildings, they often pick up dust, making them appear to have white fuzz on their faces.

Is there anything I can do to help the sick bats?

Public assistance is imperative. Wildlife Division biologists are collecting reports of unusual bat behavior or mortalities, so if you see anything, let us know! Be on the lookout for bats flying outside during winter – this is a tell-tale sign of WNS.

Because it is still unclear how exactly WNS is spread, and there is evidence that humans may contribute to the spread, avoid entering caves and other places where bats hibernate.

You can also construct a bat box, or house, to provide safe shelter for bats to use during summer.

What is a "bat box"?

A bat box is a man-made house for bats. These boxes are alternative roosting areas if you do not want bats in your house or attic. Instructions for constructing your own bat box can be found at www.ct.gov/dep/wildlife.



2009 Connecticut Spring Wild Turkey Harvest

The spring wild turkey season continues to be the most popular of the three Connecticut turkey hunting seasons. The 2009 season was open statewide and ran from May 6 through 30. A total of 6,818 permits were issued and 1,502 birds were harvested, with an overall hunter success rate of 14.9%. The harvest consisted of 1,079 adult males, 414 juvenile males, and nine bearded hens. Harvest decreased by four percent; however, permit issuance increased slightly (3%). Multiple birds were harvested by 867 hunters; 564 hunters harvested two birds and 303 hunters harvested three birds.

At least one turkey was harvested from 148 of Connecticut's 169 towns (88%), with Woodstock reporting the highest harvest at 47 birds, followed by Lebanon (39), Pomfret (31), and Cornwall (31). State land hunters reported the highest harvest from Cockaponset State Forest in Haddam (27), Natchaug State Forest in Eastford (17), and Pachaug State Forest in Voluntown (15).

In general, the highest harvest occurs on opening day and on Saturdays. The 2009 spring season was no exception as 16% (244) of the total harvest occurred on the first day of the season and 24% (359) occurred on the four Saturdays. This is expected as the majority of hunters have time off and are able to enjoy recreational activities. Although the majority of wild turkeys were harvested the first four days (635; 42%) of the season, the last three days of the 2009 spring season accounted for 10% (154) of the total harvest.

In an effort to provide a quality wild turkey hunting experience for Connecticut's junior hunters (ages 12 to 15), a junior turkey hunter training day took place on Saturday, May 2. Participants harvested 43 turkeys. The youth turkey hunting days have been well received; participants and mentors had many positive comments on the 2009 spring turkey hunter survey. The spring junior turkey hunter training day is proving to be a great way to introduce youth hunters to spring wild turkey hunting.

Several new hunter opportunities will be available for the 2010 spring wild turkey season due to recent regulations. The starting date of the spring season will move up from the first Wednesday of May to the last Wednesday of April, and the spring season will close on the last Saturday in May. Hunters will be allowed to purchase both a private land and state land permit. A second youth hunter training day has been added, starting in 2010. In addition, on youth days, the hunting hours will be extended from 12:00 PM to 5:00 PM. These new regulations will provide spring turkey hunters with more potential hunting days and better flexibility on hunting locations.

Michael Gregonis, Deer/Turkey Program

Back from the Brink - Good News for the Northern Metalmark

The November/December 2007 issue of *Connecticut Wildlife* contained an article about habitat restoration work being conducted at an important northern metalmark site in Fairfield County with the assistance of Dr. David Wagner from the University of Connecticut and his students, the Connecticut Butterfly Association, The Nature Conservancy, Audubon Connecticut, Wildlife Division, and local volunteers. The northern metalmark (*Calephelis borealis*) is a small, state endangered butterfly that uses forest habitats with openings, often with limestone outcrops. This species is dependent on its host plant, roundleaf ragwort (*Senecio obovatus*). The butterflies lay their eggs on roundleaf ragwort and, when the eggs hatch, the caterpillars will feed on the plant.

At the restoration site in Fairfield County, the metalmark's host plant has been slowly shaded out by non-native, invasive species like autumn olive, bittersweet, and barberry. A compounding problem is that these invasive plants were also shading out the native wildflowers that provide nectar for the butterflies. Prior to restoration efforts, the northern metalmark had not been observed at the site for a few years. With the utmost optimism, all parties worked many hours removing these invasive plants and planting native wildflowers, like New Jersey tea and butterfly weed, with the hope that the butterflies would return if habitat conditions improved. And, they have! This past summer, two to three individual butterflies were observed by researchers on the site. Annual monitoring and management of the invasive plants should help ensure this butterfly's continued existence at this location.

Laura Saucier, Wildlife Diversity Program

Report black bear and moose observations on the DEP website.

Successful Nesting Seasons for Bald Eagles and Peregrine Falcons

Every year, several dedicated volunteers and Wildlife Division staff monitor all of the bald eagle and peregrine falcon nests located in Connecticut throughout the nesting and fledging season. Division biologists also attempt to visit all of the nests to place identifying leg bands on the young before they fledge. This is an important management tool for monitoring these state endangered species.

Bald Eagles:

This past nesting season, 18 pairs of bald eagles attempted to nest in Connecticut, while one additional pair was territorial and another pair was inactive. Of the 18 active pairs, one pair's nesting attempt failed and the other 17 pairs fledged 31 chicks. Active nests were located in six counties: Hartford (6), Middlesex (3), New London (3), Litchfield (3), New Haven (2), and Fairfield (1). In 2008, 17 bald eagle pairs set up territories and 13 pairs produced a total of 21 chicks.

In late June, *Connecticut Wildlife* reader Frank Rossi contacted the Sessions Woods office after noticing that one of the eagle nests in Hartford County had fallen out of its tree after high winds blew through the area. Fortunately, the three young eagles had already fledged from the nest and were still observed in close proximity. The nest was the second one used at that location, after the first nest also blew down in a storm. Eagle observers will have to keep a close watch next nesting season to see if the eagle pair returns to build a new nest.

Peregrine Falcons:

This year, 13 pairs of peregrine falcons were reported. Of those, 11 actively nested, one pair was inactive, and one pair was territorial. Of the 11 active nests, one pair failed and the chick count for another nest could not be determined due to inaccessibility. A total of 25 chicks fledged from the nine accessible nests. Active nests were reported from five counties: New Haven (4), Fairfield (2), Hartford (2), New London (2), and Middlesex (1). In 2008, 10 pairs of peregrines were reported, but only seven pairs nested successfully. Two of those nests were not accessible, but biologists were able to place leg bands on 18 chicks from the accessible nests.

This year, one peregrine pair nested successfully in view of the webcam on the Travelers Tower in Hartford, fledging three chicks. The Travelers Tower has been a well known nest site since 1997, although the nesting pair has not been consistently successful. A peregrine pair returned for the second year in a row to a nest box installed at the Millstone Nuclear Power Plant in Niantic, fledging two young.

Keeping Track of CT's Resident Goose Population

Three distinct populations of Canada geese are present in Connecticut at sometime during the year. The Atlantic population breeds in northern Quebec and winters from Massachusetts southward, but its core wintering area is in the Chesapeake region of the Atlantic Flyway. The North Atlantic population nests in the Canadian Maritime Provinces and winters primarily in southern New England and eastern Long Island. The Atlantic Flyway resident population breeds throughout Connecticut, with the largest concentrations occurring in the most heavily urbanized areas of the state.

In the past 25 years, land use changes in Connecticut have created ideal resident Canada goose habitat. These changes, along with a decrease in hunting pressure, have led to an increased resident Canada goose population. With this population growth has come more nuisance complaints. One way to monitor these birds is through banding. The information that is derived from banding is used by researchers for various purposes, such as assessing the distribution of harvest, productivity, population size, and survival rates. It also helps in identifying important breeding, staging, and wintering areas, along with migration routes and corridors. With more liberalized Canada goose hunting seasons, it is imperative that the banding effort be intensive and well distributed throughout the state.

During their annual molt, Canada geese, along with the other waterfowl species, simultaneously shed their primary feathers and become temporarily flightless. This is the best time to capture geese for banding. The geese are driven across land or water and corralled into a portable net, where they are then aged, sexed, and fitted with leg bands. The age and sex of each bird is determined using plumage characteristics in conjunction with cloacal examinations.

In late June and early July of this year, staff from the Wildlife Division, with the help of numerous volunteers, captured 1,343 non-marked and 430 previously marked resident Canada geese. Geese were banded at 47 different sites throughout the state and in every county. All banding data were submitted to the U.S. Geological Survey Bird Banding Laboratory. The majority of this year's recaptures were originally banded in Connecticut. However, some were banded in other states. These geese are known as molt migrants, which make a late spring movement from their breeding location to another area where they undergo their annual molt. Geese that undertake these movements are primarily nonbreeding subadults or unsuccessful breeding adults.

There are currently a number of important tools available for managing Connecticut's resident Canada goose population. One is regulated hunting. Connecticut currently has two seasons that are specifically geared towards increasing the harvest of resident Canada geese. They are designed to reduce the resident goose population while having a minimal impact on migrant geese. The seasons were initially monitored by conducting intensive neck collar observations and band recovery analysis.

Anyone who encounters a banded bird is urged to report it to the Bird Banding Laboratory at 1-800-327-BAND (2263) or on the web at www.pwrc.usgs.gov/bbl/. Those interested in volunteering for next year's goose banding project can contact Division technician Kelly Kubik at kelly.kubik@ct.gov or at (860) 642-7239.

Kelly Kubik, Migratory Gamebird Program

Help Reduce Spread of the Asian Longhorned Beetle

The Asian longhorned beetle is a serious pest that can kill hardwood trees that are common in Connecticut. This large, black beetle has white spots. It ranges between an inch to 1 1/4 inches long. Adults are usually seen from late spring to fall.

In August 2008, federal agricultural officials confirmed the presence of beetles in nearby Worcester, Massachusetts, and there is concern that it could spread into Connecticut. Asian longhorned beetles have NOT been found in Connecticut to date. Due to the proximity of infestations in New York City, New Jersey, and Massachusetts, Connecticut residents and visitors must be on the look out for this pest and take steps to prevent movement of wood that could carry insects to new locations in our state. The DEP and Connecticut Agricultural Experiment Station (CAES) recommend that residents do not move firewood and especially do not bring firewood from other states into Connecticut. Harmful forest insects often spend a portion of their life cycle as larvae inside the trunk and branches of trees. The movement of infested firewood or other wood material is the primary way new infestations get established. Purchasing firewood locally is a best management practice that reduces the risk of spreading these destructive pests.

Asian longhorned beetles take several years to kill a tree, but if an infested tree is left alone, it will be home to generations of beetles that will spread to neighboring host trees. If wood is moved

from the infested area, new locations are also at risk. To prevent this, infested trees need to be removed as early as possible and, in certain circumstances, high risk trees will be removed. The earlier an infestation is found and reported, the quicker federal, state, and local officials can work together to eradicate this pest. Small infestations are much easier to manage and have less impact on the environment and citizens. Suspected infestations or possible sightings of Asian longhorned beetles should be reported immediately to the CAES at 203-974-8474. Reports can also be submitted to the Asian longhorned beetle New England hotline at 866-702-9938.

Asian longhorned beetles were first discovered attacking trees in New York City in 1996. The beetles probably traveled to the United States inside solid wood packing material from China. They are a serious pest in China, where they kill hardwood trees. In the U.S., the beetle prefers maple species, including box elder, Norway, red, silver, and sugar maples, as well as birches, elms, horse chestnut, and willows.

Currently, the only effective way to eradicate the beetles is to remove infested trees and destroy them by chipping or burning. To prevent further spread of the insect, quarantines are established to regulate movement of articles that could carry life stages of the pest including all firewood. Early detection of infestations and rapid response are crucial to successful eradication of the beetle.



During banding efforts, molting, flightless geese are herded into a netted corral. Leg bands are placed on the geese and information on sex and age are collected. Band numbers for previously banded geese are recorded. All geese are released on site.

R. WOLFE, MOSQUITO MANAGEMENT PROGRAM (3)

Hunting Season Outlook

Several new regulations concerning hunting became effective in August 2009. Hunters should become aware of these changes for the upcoming seasons (see page 18). Regulations concerning the tagging and reporting of deer and turkeys harvested by hunters have undergone significant changes. The new regulations are designed to make the purchase of deer and turkey permits more convenient for sportsmen, as well as save money on the printing and distribution of permits and tags and improve harvest monitoring methods (see page 18).

Hunting licenses and permits can be purchased online at www.ct.gov/dept/sportsmenlicensing and at select DEP offices and vendors.

White-tailed Deer Season

Connecticut's deer population remains healthy and harvest rates are expected to be high during the 2009 hunting season. The abundance of acorns and weather conditions during the hunting season will influence hunter success and total deer harvest. Opening days are September 15 for archery, November 18 for shotgun/rifle, and December 9 for muzzleloader.

The Replacement Antlerless Tag and Earn-A-Buck Programs will continue in 2009 in deer management zones 11 and 12. These efforts have resulted in an increased harvest of female deer in southwestern Connecticut and in many shoreline towns. Consult the 2009 Connecticut Hunting and Trapping Guide to learn more about these programs. The guides are available at town clerk and some DEP offices and on the website at www.ct.gov/dept/hunting.

Wild Turkey Season

Hunters should expect to observe a reduced number of wild turkeys during the 2009 fall turkey seasons because of the wet and cool weather conditions experienced during the nesting (May) and brood rearing (June) periods. These conditions may have reduced nesting success and poult survival.

Fall firearms turkey hunters have many opportunities to harvest a wild turkey. Individuals can obtain both a private land permit (2 either-sex tags) and a state land permit (1 either-sex tag). The 2009 fall firearms season runs from October 3 through October 31.

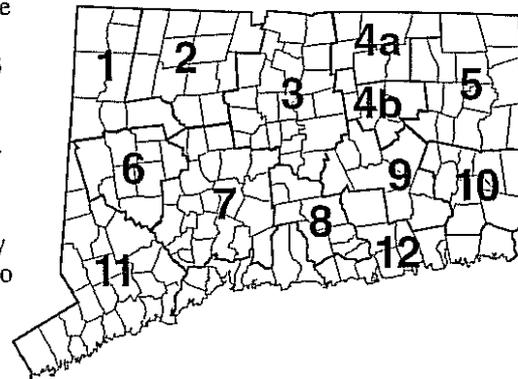
The fall archery turkey season runs concurrent with the regular archery deer season (see below for season dates). Archers can harvest two birds of either sex from state and/or private land. Many archers that hunt principally for deer also purchase a fall archery turkey permit to take advantage of a chance encounter with a turkey while sitting in their deer stand. If hunters purchase all available firearms and archery permits, they may harvest up to five birds.

Migratory Gamebird Seasons

Ducks, Mergansers, and Coots: Black duck populations continue to be stable, therefore a bag limit of one black duck will be allowed during the early season in both the north and south zones. The canvasback season will be open this year, with a one-bird daily bag limit for the entire season. The daily bag limit of sea ducks remains at five, and the daily bag limit for long-tailed (oldsquaw) ducks remains at four. Declining numbers of wintering sea ducks and increased hunting pressure on these long-lived species continues to warrant more conservative regulations. The scaup season will be open for the entire season with a two-bird daily bag.

Regular and Late Canada Goose Seasons: There are no new changes to goose hunting season frameworks for 2009-2010. The season length in the AFRP zone will be 80 days, with a five-bird daily bag limit. The North Atlantic Population continues to be stable, thus there is no change to the hunting season in the NAP-H zone. The season will be 60 days with a two-bird daily bag limit. The Atlantic Population of Canada geese continues to recover. However, breeding conditions were poor in 2009. Thus, there is no change in the AP Unit. The season

Connecticut Deer Management Zones



will be 45 days, with a three-bird bag limit. Descriptions of the hunting zones for Canada geese are in the 2009-2010 Migratory Bird Hunting Guide, which is available at most town clerk and DEP offices, as well as on the DEP's website (www.ct.gov/dept/hunting).

Sportsmen also will have the opportunity to harvest resident Canada geese during the early September season and the special late season (in the south zone only; January 15-February 10, 2010). No special permits are required for either special goose season.

Hunters are reminded to report waterfowl bands. Band returns provide vital information for the continued management of the waterfowl resource. Bands can be reported at www.reportband.gov.

Woodcock, Snipe, and Rail: There are no changes in the woodcock, snipe, and rail seasons for this year. Woodcock production throughout the Northeast was adequate this year. Overall, woodcock numbers have been stable for the past 10 years.

Small Game and Upland Bird Seasons

Opening day for most small game hunting will be Saturday, October 17. The DEP will purchase 14,303 adult pheasants for the upcoming fall season, a decrease of 439 birds from the previous year's purchase. In addition to adult pheasants, 780 eight-week-old pheasants were delivered to Norwich Fish and Game and Sprague Rod and Gun Clubs for eventual release on permit-required hunting areas. The Pheasant Program budget is determined by the net revenue collected in the previous year. In 2008, 6,346 pheasant stamps were sold;

Fall Archery Turkey Seasons

State Land	State Land Bowhunting Only Areas	Private Land (zones 1-10)	Private Land (zones 11-12)
Sept. 15-Nov. 17 Dec. 23-31	Sept. 15-Dec. 31	Sept. 15-Nov. 17 Dec. 9-31	Sept. 15-Dec. 31 Jan. 1-31, 2010

however, program costs increased as well.

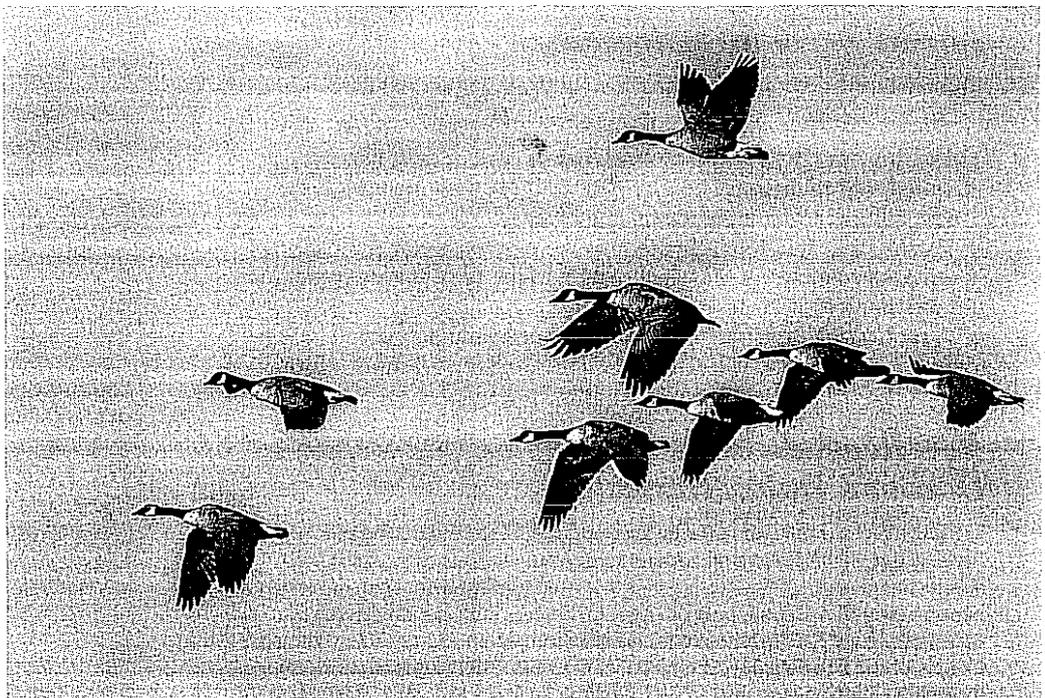
A total of 42 areas will be stocked during the 2009 fall season, including two new areas – Suffield WMA (Suffield) and John Minetto State Park (Torrington). A number of lower quality/lower public use areas will not be stocked in an effort to maintain adequate allocations on the higher quality sites. Stocking will occur two to three times per week during the seven-week distribution period, except during the third week in November when the firearms deer season opens statewide. Only a limited number of pheasants will be stocked during that week on 22 areas. Pheasants will be nearly evenly distributed with one-half of the allocations released in October and one-half during November. All stocking will conclude by Thanksgiving Day.

To provide opportunities for weekend/family and youth hunters, volunteers for the DEP will release pheasants on Friday evenings and variable Saturdays at select sites. Cooperative sportsmen's clubs that provide public hunting access to permit-required hunting areas will continue to stock state-purchased birds on several areas.

To help promote the use and increase opportunities on some of the highest quality state-owned areas, daily hunting permits are not required for Goshen WMA (Goshen), Babcock Pond WMA (Colchester), Bear Hill WMA (Bozrah), Higginum Meadows WMA (Haddam), and Nathan Hale State Forest (Coventry).

A program to provide youth hunters with unrestricted access to select permit-required hunting areas will continue.

For details and a complete listing of all major stocking areas and vendor locations, visit the DEP website. Pheasant tags will be available for over the counter purchase (via cash or check) at the following DEP offices: Sessions Woods WMA (Burlington), Franklin Swamp WMA (Franklin), Marine Headquarters (Old Lyme), Eastern District Headquarters (Marlborough), Western District Headquarters (Harwinton), and DEP Headquarters (Hartford). Tags also may be ordered through the online licensing system (www.ct.gov/dep/sportsmenlicensing), but hunters should allow at least two weeks to receive their tags through the mail.



P. J. FUSCO

There are no new changes to goose hunting season frameworks for 2009-2010. Sportsmen continue to have the opportunity to harvest resident Canada geese during the early September season and the special late season (in the south zone only; January 15-February 10, 2010).

How Annual Waterfowl Regulations Are Set

The annual process of setting migratory gamebird hunting regulations in the United States begins in January and ends in September and is based on a system of resource monitoring, data analyses, and regulation development. Hunting regulations for ducks, geese, woodcock, mourning doves, and other migratory gamebirds are set annually and based on the population status of each species. Estimates of both the number of birds and hunting harvests are needed to monitor and ensure appropriate and sustainable populations of each species.

Each year, surveys, such as the waterfowl breeding pair, woodcock singing ground, and dove call count, are conducted. The results of these various surveys are used to assess the populations. In addition, leg banding of various waterfowl species is used to determine harvest and survival rates for use in harvest and population models. Information on hunter numbers and harvests is obtained from the Harvest Information Program (HIP). Habitat conditions also are annually assessed across the waterfowl breeding ranges of North America.

All these data are analyzed annually by the biologists of each of the four Flyway Councils (Atlantic, Mississippi, Central, and Pacific). The councils develop waterfowl and other migratory gamebird hunting regulation proposals, which are, in turn, submitted to the U.S. Fish and Wildlife Service (USFWS) for evaluation and approval or denial. Connecticut is part of the Atlantic Flyway Council.

After extensive public review, the USFWS Regulations Committee sets migratory bird hunting regulations by establishing the frameworks, or outside limits, for season lengths, bag limits, and areas for migratory bird hunting. For example, the current duck hunting season frameworks in the Atlantic Flyway are a 60-day season with a six-bird daily bag limit that must occur between the Saturday nearest September 24 and the last Sunday in January. Individual states may then choose their hunting seasons from within those frameworks. States can be more restrictive than the allowable framework, but never more liberal. Early season regulations are set at the June meeting of the Regulations Committee. Early seasons generally begin before October 1 and pertain to migratory gamebirds other than waterfowl (i.e., webless migratory game birds); all migratory gamebirds in Alaska, Hawaii, Puerto Rico, and the Virgin Islands; and special early waterfowl seasons, such as teal or resident Canada geese. Late season regulations are set at the July meeting of the Regulations Committee. Late seasons generally start on or after October 1 and include most waterfowl seasons not already established.

Setting waterfowl hunting regulations is a balancing act. Hunters request different season dates, bag limits, shooting hours, etc., depending upon the species they want to pursue and when they want to pursue them. The DEP's challenge is to balance these requests with the ability of waterfowl populations to maintain themselves at healthy levels over the long-term.

Important Notice to Sportsmen

Pursuant to the recently adopted state budget (Public Act 09-3 – June Special Session):

- **Fishing, hunting, and trapping license and permit fees are scheduled to increase on October 1, 2009.** This includes both recreational and commercial fishing fees.
- Among the other fees scheduled to increase on October 1, 2009, are state park and forest fees, including parking fees, season passes, and camping fees.
- A revised list of fishing and hunting license and permit fees will be provided by October 1. Check the DEP website for more information.

New Regulations for the Tagging and Reporting of Deer and Turkey Harvests

Regulations concerning the tagging and reporting of deer and turkeys harvested by hunters have undergone significant changes. One of the most significant changes is that the Tyvek® tags that used to come with deer and turkey hunting permits will no longer be used. Instead, hunters are now required to use newly-designed Kill Tags to record information about deer or turkeys they harvest. Copies of the new Kill Tags are on page 37 of the 2009 Connecticut Hunting and Trapping Guide and are also available on the DEP website at www.ct.gov/dep/hunting.

When hunters harvest a deer or turkey, they must fill out a Kill Tag, sign it, and keep the Kill Tag with the animal until it is brought to a check station or is processed for consumption. When transporting a harvested deer or turkey, the tag does not have to be attached to the animal. Hunters can carry the completed, signed Kill Tag in their pocket so there is no chance of losing it. However, if the animal is left in the woods or at a vehicle, the Kill Tag must remain with the animal. In this instance, it is recommended that the Kill Tag be placed in a plastic bag and secured to the animal.

In 2009, the number of days that deer must be brought to a check station has changed. Only deer taken during the first four days of the shotgun/rifle season (November 18-21) must be brought to a check station. A listing of deer check stations is available on the DEP's website and at DEP offices. At all other times, hunters are required to report their deer and turkey kills within 24 hours using one of two methods. Kills can be reported on the DEP website www.ct.gov/dep/hunting or by calling a toll free number (1-877-337-4868). Hunters are no longer required to mail in a kill report card. After reporting their kill via the internet or by telephone, hunters will be given a confirmation number to write on their Kill Tag. This confirmation number serves as proof that the kill was legally reported. Deer hunters in deer management zones 11 and 12 who take advantage of the Replacement Antlerless and Earn-a-Buck tag programs must complete this same tagging and reporting procedure prior to going to a check station that issues replacement tags. Hunters using Landowner Permits must also use the same tagging and reporting procedure. However, as in the past, they are not required to bring their deer to a check station.

Hunters with internet access may find that submitting their kill reports on the DEP website is much easier than using the telephone reporting system. The telephone reporting system uses an automated attendant that prompts the user to answer a series of questions by pressing the appropriate numbered responses. On the website, hunters can answer questions by using convenient drop-down menus. Other advantages of using the internet to report is that hunters can review reports they have previously submitted and print out copies of these reports for their records.

Kill Tags and instructions on using the new reporting systems are on the DEP website www.ct.gov/dep/hunting. The DEP recognizes that it may take time for some hunters to adapt to the new system, but hopefully they will soon benefit from its convenience.

Online Licensing for Sportsmen Available on the DEP Website

Go to www.ct.gov/dep/sportsmenlicensing to purchase Connecticut hunting, trapping, and fishing licenses, as well as all required deer, turkey, and migratory bird permits and stamps. The system accepts payment by VISA or MasterCard.

New Regulations

Deer Hunting

Establishes new procedures for tagging and reporting deer.

Extends private land muzzleloader deer season to end of December.

Creates a second junior deer hunting training day.

Turkey Hunting

Establishes new procedures for tagging and reporting turkeys.

Moves spring turkey season forward by one week to start on last Wednesday in April.

Ends spring turkey season on last Saturday in May.

Allows spring turkey hunters to obtain both a state land and private land permit.

Establishes a second junior turkey hunting training day and extends hunting hours on junior turkey hunting training days to 5:00 PM.

Bowhunting Regulation Changes

Eliminates interview process for physically disabled persons to obtain a crossbow permit.

Eliminates orange clothing requirements for bowhunting during firearms deer seasons on state lands that are designated as bowhunting only when hunting from an elevated stand.

Allows crossbows on private land in deer management zones 11 and 12 during January bow season.

Allows deer hunters on private land to use a bow during entire shotgun/rifle season on a statewide basis and exempts them from orange clothing requirements when hunting from an elevated stand.

Trapping

Eliminates season bag limit on beaver and extends beaver trapping season to March 31.

Adjusts fisher trapping season to be November 20 through December 31 and increases the season bag limit on fisher from two to four.

Falconry

Amends falconry regulations to redefine hybrid raptors consistent with federal laws; changes permit duration and reporting requirements to a June-July calendar year; and changes fee for a non-resident falconry permit.

Basic Hunting Safety Rules

- Respect property and landowners. Always obtain permission to hunt on private land.
- Know and obey the laws.
- Treat every firearm as if it were loaded.
- Always keep the muzzle of your firearm pointed in a safe direction.
- Always be sure of your target and what is beyond before pulling the trigger.

Wildlife Calendar Reminders

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 **Fall Nature Walk for Young Children**, starting at 9:30 AM. Children, ages 4-7, and their caregivers are welcome to join Master Wildlife Conservationist and Wildlife Division staff member Lauren Pasniewski for an easy walk at Sessions Woods to learn about wildlife and the fall season. Participants should meet inside the education center.
- Dec. 30 **Children's Program: Wildlife Tracks & Signs**, starting at 10:00 AM. Learn about wildlife tracks indoors with Natural Resource Educator Laura Rogers-Castro of the Wildlife Division and then head outside for a short walk to look for animal signs. Children also will make a wildlife track to take home. An adult must accompany all children. Meet in the small classroom in the exhibit area at Sessions Woods.

Hunting Season Dates

- Sept. 15-Nov. 17 First portion of the deer and turkey bowhunting season (private land bowhunters in deer management zones 11-12 may hunt deer until January 31, 2010).
- Oct. 3 Opening day for fall firearms turkey hunting season
- Oct. 17 Opening day for small game hunting season
- Nov. 7 & 14 Junior Deer Hunter Training Days
- Nov. 18 Opening Day for deer shotgun/rifle season.
- Nov. 28 Opening day for deer shotgun season on state land (B season) and state land no-lottery season
- Dec. 9-22 Deer muzzleloader season
- Consult the 2009 Connecticut Hunting and Trapping Guide for specific season dates and details. The 2009-2010 Migratory Bird Hunting Guide contains information on duck, goose, woodcock, rail, and snipe seasons. Both guides are available at Wildlife Division offices, town halls, and on the DEP website (www.ct.gov/dep/hunting). The 2010 Connecticut Hunting and Trapping Guide will be available by mid-December.

Belding WMA

continued from page 9

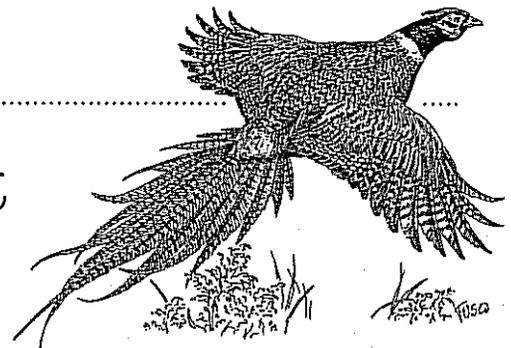
season. Without mowing or another type of disturbance, these fields would eventually revert to forest.

Species that inhabit the fields and field edges at Belding WMA include eastern bluebirds, tree swallows, red-winged blackbirds, indigo buntings, eastern kingbirds, song sparrows, red-tailed hawks, blue-winged warblers, and yellow warblers. Small mammals, such as meadow voles and meadow jumping mice, are also found in these fields, as well as a variety of butterflies, moths, dragonflies, damselflies, and other insects.

Building Shelter for Bluebirds

The Wildlife Division is once again offering bundles of rough-cut lumber to groups free of charge for building bluebird nest boxes. The wood can be reserved by organized groups only on a "first come, first serve" basis beginning November 1, 2009. Group leaders should call Geoffrey Krukar at 860-675-8130 (Mon.-Fri., 8:30AM-4:30 PM) to make a reservation. Requesters must provide the following information: their name, group name, mailing address, daytime phone number, and number of bundles requested (limit 3 per group). One hundred bundles will be available by January 2010. Each bundle of wood yields approximately 15-20 nest boxes. Please be aware that the lumber consists of planks, and all groups will be responsible for cutting the wood to the correct dimensions. Only one request per group will be accepted and participants will be mailed information packets that contain box designs, directions to pick up location, and claim tickets. When notified, groups will be responsible for picking up their wood at Sessions Woods WMA.

Participating groups will be expected to construct, erect, and monitor the bluebird boxes throughout the nesting season (March-July). To be eligible to participate in future years, an annual report of box usage will need to be sent to the Division.



Connecticut Wildlife

Subscription Order

Please make checks payable to:

Connecticut Wildlife, P.O. Box 1550, Burlington, CT 06013

Check one:

- 1 Year (\$6.00) 2 Years (\$11.00) 3 Years (\$16.00)

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P. J. FUSCO



A glimpse into a Connecticut osprey nest shows how ospreys will inadvertently pick up trash when building their nests. Sometimes the trash is picked up as "decorations," but most often it is attached to sticks placed in the nest. Plastic bags, string, ribbon, fishing line, and six pack yokes that end up in nests can often kill or injure the young birds and even the nesting adults.



Lake Lovers meet in Hartford

The North American Lake Management Society (or NALMS) is involved in inland water research, management, conservation and advocacy. This year from October 27th to 31st their symposium will be held at the Connecticut Convention Center in Hartford. As it is being held in the insurance capital of the world, the theme is "Insuring Our Lakes' Future,"

Workshops and technical sessions on various lake related topics will include: Aquatic Plants, Climate and Weather Impacts on Lakes, Management Approaches, National Lake Assessment, and Topics in Environmental Education. This year a special program has been developed for Lake and Watershed Stewards... those of us not exactly scientists or professionals, but equally concerned about the health and future of our inland aquatic resources. There is a special rate of \$ 140 for the Friday and Saturday program (October 30th and 31st) as well as a special rate of \$75 for those only attending workshops on Saturday the 31st. A continental breakfast, lunch and two refreshments breaks are included each day. (FYI - one day registrations cost \$230; the entire 5 day program is \$550.)

Presentations in the Lake and Watershed Stewards Program on Friday will include: Invasive Aquatic Species, Lakes as Life Forces, Literary, Spiritual and Societal Aspects of Lakes, Limnology 101 and Topics in Lake and Watershed Stewardship. Workshops on Saturday the 31st will include: Lake Law for Lake Associations, Landscaping at the Water's Edge, Getting Started in Volunteer Lake Monitoring and an Ask the Experts workshop.

The Connecticut Federation is thrilled that NALMS chose Hartford as the site for what is annually the largest lake meeting in the western hemisphere and hopes that many will consider this educational opportunity in late October when the boats and docks are out. The more folks learn from experts and from each other the more the lakes will benefit. Improving Connecticut's lakes is a must, no debate! The Friday and Saturday package is tailor made for us. Come for both days or for Friday or Saturday alone. The Friday night dinner at the boat house is sponsored by the CFL and will provide and opportunity for networking and the CFL directors look forward to greeting our fellow lake stewards.

Learn more at Connecticut Federation of Lakes at www.ctlakes.org, and click hot topics on the toolbar. To register for the Lake and Watershed Stewards Program please go to the NALMS website at www.nalms.org.

Bruce Fletcher
CFL President

North American Lake Management Society

29th International Symposium

October 27 - 31, 2009

Connecticut Convention Center - Hartford, Connecticut

Hosted by the New England Chapter of NALMS



Special Lake & Watershed Steward Program

We know that our lakes are special – but how do we protect them?

The North American Lake Management Society wants to provide **you** with the tools for making a difference for **your** lake. The Lake and Watershed Stewards Program offers presentations and workshops geared for lay lake leaders.

When and where is it?

The Lake & Watershed Stewards Program is offered on Friday and Saturday, October 30 & 31, as part of the North American Lake Management Society's International Symposium at the Connecticut Convention Center in Hartford, Connecticut.

Who should attend?

The Lake & Watershed Stewards Program is designed for lay lake leaders such as conservation commission members, lake and watershed group leaders and members, lakeside residents, as well as volunteer monitors and program coordinators.

Why should I attend?

- Learn from lake managers and other experts from across the country
- Discuss real world projects with scientists, policymakers, lake managers and fellow citizens
- Discover how to integrate sound science and public policy to achieve long-term benefits in an era of strained resources.

How Much Does it Cost?

Two registration options are available:

Two-day Registration – \$140

- Choice of technical sessions on Friday, including special Lake & Watershed Steward sessions or any other sessions offered on Friday.
- Two half-day workshops on Saturday (see reverse for available workshops)
- Continental breakfasts and lunches on Friday & Saturday
- Refreshment breaks on Friday & Saturday

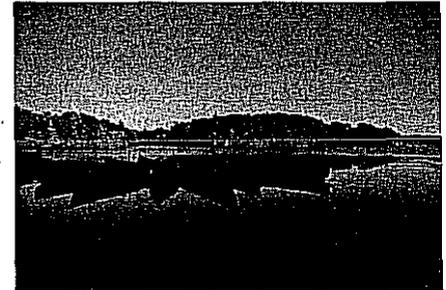
Saturday-only Registration – \$75

- Two half-day workshops on Saturday (see reverse for available workshops)
- Continental breakfast and lunch
- Refreshment breaks

Hotel registration is not included in these packages. See reverse for hotel options and additional symposium details.

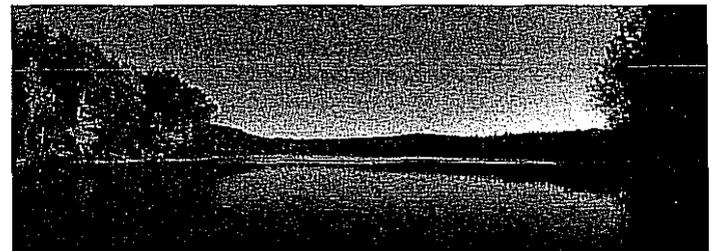
Special Lake and Watershed Steward Sessions

- Invasive Aquatic Species
- Lakes as Life Forces: Literary, Spiritual and Societal Aspects of Lakes
- Limnology 101
- Topics in Lake and Watershed Stewardship



Two-day Lake & Watershed Stewards Program participants are also welcome to attend any of the sessions offered on Friday as part of NALMS International Symposium.

SolarBee®
Circulating the World's Water



Special Friday evening dinner event

Don't miss the optional Friday evening boat ride on the Connecticut River to the Greater Hartford Jaycees Community Boathouse for an authentic New England dinner! An additional registration fee of \$30 is required for this special event. Sponsored by the Connecticut Federation of Lakes.



Register at www.nalms.org

Technical Program

The NALMS 2009 Program Committee is planning a top-notch arrangement of presentations as well as pre- and post-symposium workshops on diverse aspects of lakes, ponds, reservoirs, their watersheds, and their many users and inhabitants. Below is a sampling of key topics we are planning, but please check the symposium web page regularly for up-to-date program information.

Technical Session Topics (October 28 - 30)

- Aquatic Plants
- Climate and Weather Impacts on Lakes
- Comprehensive Lake Management
- Data Management and Technologies
- Ecology and Community Dynamics of Nuisance Cyanobacteria
- Fisheries Management
- In-lake Management
- Invasive Aquatic Plants
- Kettle Lakes
- Lake Assessment and Classification
- Management Approaches
- Management of Hydrilla in the Northern Tier States
- Modeling
- National Lake Assessment
- Nutrient Criteria
- Paleolimnology
- Prevention, Control, Assessment and Management of Nuisance Cyanobacteria
- Reservoir Management
- The Voice of Experience: Career Lessons from Long-term Water Professionals (Roundtable)
- TMDLs
- Topics in Environmental Education
- Volunteer Monitoring
- Watershed Exports

Pre-symposium Workshops (October 27)

- Alum for Phosphorus Inactivation & Interception
- Applied Water Quality Modeling with WASP7
- Aquatic Plant Identification
- Internal Phosphorus Loading
- Introduction to Electrofishing
- Remote Sensing
- Reservoir Nutrient TMDL Assessment Modeling – CE-QUAL-W2
- Taxonomy, Ecology, and Control of Nuisance Algae
- The Advantages and Drawbacks to Nitrogen Control in Natural Waters
- Writing to Be Read

Post-symposium Workshops (October 31)

- Ask the Experts
- Basics in Algal Identification and Sampling
- Getting Started in Volunteer Lake Monitoring
- Lake Law for Lake Associations
- Landscaping at the Water's Edge
- Mapping Basins on a Budget
- Writing to Be Read
- Zooplankton for Everyone!

Hotel Information

The Hartford Marriott and Hilton will provide accommodations for Symposium. Both hotels were selected by NALMS for their luxurious amenities and convenient location to the conference center (the Marriott is attached to the convention center and is the anchor hotel for the conference), as well as their excellent room rates. Each hotel offers the latest technology and stunning views of the Hartford skyline.

Marriott Hartford Downtown (Headquarters Hotel)

200 Columbus Blvd.
Hartford, CT 06103-2807
Phone: 860.249.8000
Toll-free: 866.373.9806
website: www.marriott.com

- » Refer to group code **laklaka** when making your reservation to receive the conference rate.
- » Room rates are \$152 for single or double occupancy plus tax.
- » Government rates are available.
- » The conference rate is available until October 2, 2009.

Hilton Hartford

315 Trumbull St.
Hartford, CT 06103
Phone: 860.728-5151
Toll-free: 800.445.8667
website: www.hilton.com

- » Refer to group code **NALMS** when making your reservation to receive the conference rate.
- » Room rates are \$149 for single or double occupancy plus tax.
- » Government rates are available.
- » The conference rate is available until September 30, 2009.

Important Deadlines

September 4, 2009

Early bird registration ends.

October 2, 2009

Last day conference hotel rate available.

October 2, 2009

Regular registration ends. All registrations received after this date will be charged the on-site rate.

Contact Information

Symposium Co-chairs

Chuck Lee | 860.424.3716 | charles.lee@ct.gov
Elizabeth Herron | 401.874.4552 | emh@uri.edu

Program Chair

Amy Smagula | 603.271.2248 | amy.smagula@des.nh.gov

Sponsorship & General Conference Information

NALMS Office | 608.233.2836 | info@nalms.org

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CLEARSCAPES

A Newsletter of the Center for Land Use Education and Research at the University of Connecticut Fall 2009

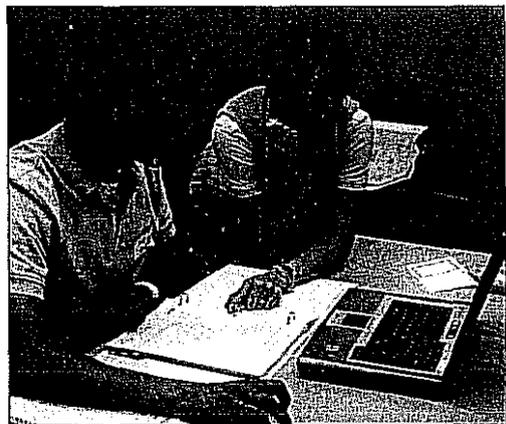
Research - Forest Fragmentation
Outreach - "Mashup" Training
Tools - National NEMO LID Atlas

New & Noteworthy @ CLEAR
Read about recent projects, awards, websites and other updates.

Outreach & Training

"Mashup" Madness New Focus for CLEAR

Chances are that you're familiar with Google Earth and Google Maps. But did you know that these and other "earth browser" technologies can be used in combination with geospatial technologies to allow researchers, outreach professionals and others to share their data, maps and images over the web? This combination of techniques is commonly called a "mashup," a term borrowed from the early days of hip-hop music when existing recordings and sound effects were "mashed" together to form a new creation.



Cary Chadwick of the Geospatial Technology Program helps an attendee of the regional mashup training at Avery Point in Groton, CT this past spring.

Mashup technology holds tremendous promise for broad-based dissemination of a wide variety of research and other information. Basically, any information with a geographic location can be displayed via an earth browser, including data, photos and links to websites and documents. A prominent example is the CT NEMO Low Impact Development (LID) Inventory, a searchable website that uses Google Maps to display information about LID sites across the state. A National LID Atlas, where any of the 32 NEMO programs around the country can create their own entries, just debuted this summer (see related article and image, page 4).

Three CLEAR programs, the Geospatial Technology Program (GTP), the CT NEMO Program and the National NEMO Network, have collaborated to develop mashup training for colleagues in the state and the region. The prototype of the one-day workshop was tested in 2007 with colleagues from the National NEMO, USDA, NGTEN, Land Grant and NOAA Sea Grant networks, and has been fine-tuned in the intervening time. An advanced mashup class for Connecticut professionals was

... continued on pg 4

Research

CLEAR Unveils New Forest Fragmentation Website

Forest fragmentation—the breaking up of large forested blocks into smaller and smaller pieces—is considered by forestry, wildlife, water and social experts alike to have serious implications for the condition of our natural resources, character of our communities and health of our citizens. Researchers, natural resource managers and communities can get a clearer picture of this problem with the release of a new section of CLEAR's "Connecticut's Changing Landscape" project, focusing on forest fragmentation.

The Changing Landscape project, which was recently updated and enhanced, charts changes to the state's landscape between 1985 and 2006. Until now, the project has focused on straightforward change information, including maps and statistics for the major land cover categories of developed land, turf, agricultural fields and forest. The forest fragmentation study goes one step further, using a model that extracts information from the basic land cover about the form (and thus probable function) of the forest as development progresses.

In a sense, while the basic land cover

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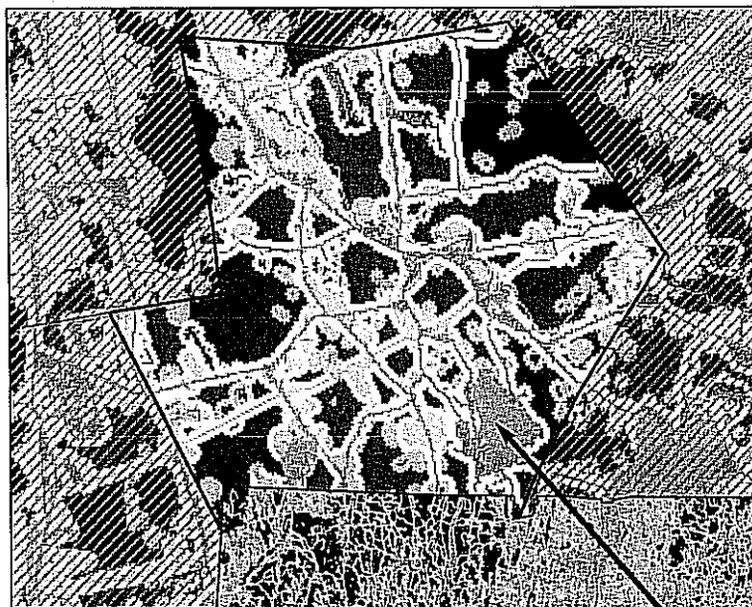
Forest Fragmentation article continued from cover. . .

Connecticut's Forest Fragmentation

tells us where the *trees* are, the new analysis tells us where the *forests* are. The model was adapted from a U.S. Forest Service model by CLEAR remote sensing specialists James Hurd and Jason Parent, and categorizes forested areas based on how extensively they are divided by development, and other non-forested areas. The categories go from "core" forest relatively unaffected by development, to "edge" and "perforated" forest," to "patch" forest completely surrounded by development or non-forest. (images, right). Based on existing research, the model uses 100 meters (300 ft) as the distance into a forested area typically influenced by non-forested land uses.

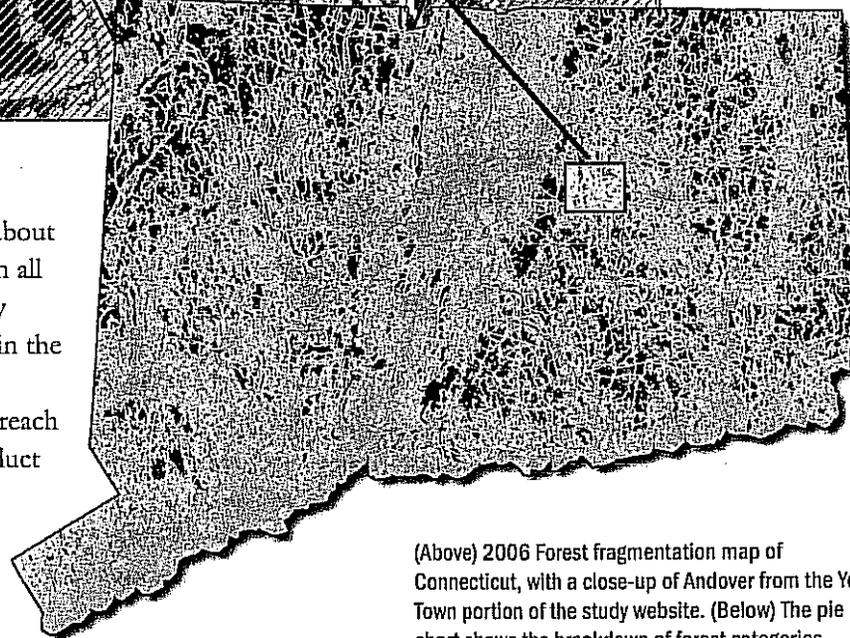
During the 1985 – 2006 period, Connecticut lost about 264 square miles of core forest, while gaining area in all the other categories. This core forest represents only about 46% of the total forest cover, as can be seen in the pie chart (bottom right).

In addition to the website, of course, CLEAR outreach staff will be using the new information as they conduct workshops with Connecticut community land use decision makers and forest owners. "We're hoping that this information will be used by communities, land trusts, and other entities as they plan open space protection," says Connecticut NEMO Director John Rozum. Because forest resources, both public and private, provide essential public benefits such as water source protection, carbon sequestration and a myriad of habitat features, communities must plan for growth with conserving these benefits in mind. "This tool will give community leaders a better feel for where to protect, where to restore, and even where to reforest," adds Extension Forester Tom Worthley. ☺



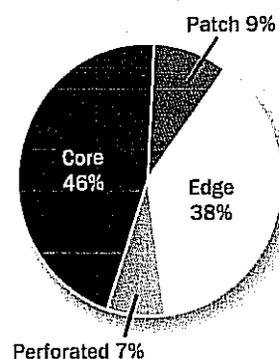
Map Legend

Forest Fragmentation	
	Patch Forest
	Edge Forest
	Perforated Forest
	Core Forest (<250 ac)
	Core Forest (250-500 ac)
	Core Forest (>500 ac)
	Developed
	Non-forest
	Water



(Above) 2006 Forest fragmentation map of Connecticut, with a close-up of Andover from the Your Town portion of the study website. (Below) The pie chart shows the breakdown of forest categories, statewide, in 2006.

Statewide Forest Types, 2006



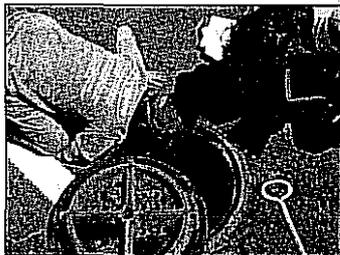
Visit Connecticut's Changing Landscape Website at:
clear.uconn.edu/projects/landscape/forestfrag

New & Noteworthy @ CLEAR

► **Groundbreaking water protection project begins on UConn campus.** In July, CT NEMO began field work on a project to improve Eagleville Brook watershed, which is located in Mansfield and includes much of the UConn campus in its upper reaches. The project is in response to a "Total Maximum Daily Load" (TMDL) developed by CT DEP for Eagleville Brook. TMDL's are part of the Clean Water Act, and are usually written using target levels of specific pollutants, like nitrogen or bacteria. In the case of Eagleville, which testing showed to have overall impairments due to stormwater runoff, CT DEP developed an impervious cover TMDL which targets reductions in the amount and impact of impervious surfaces in the watershed. It is the first of its kind in the entire nation, and many believe the wave of the future in water regulation for urbanized watersheds suffering from stormwater-generated maladies. Stay tuned....

► **CT ECO is on the way.** A new, cutting-edge interactive mapping website will be unveiled soon that will allow Connecticut residents to access a wide array of digital information about their neighborhood, watershed or town. Connecticut Environmental Conditions Online, or CT ECO for short, is a partnership between CT DEP and CLEAR, funded in part by the Office of Responsible Growth of the CT Office of Policy and Management.

► **Land Use Academy: Down but not out!** The state budget crisis funding axe fell on CLEAR's Land Use Academy after



In July, CT NEMO staff and partner's poured over maps and looked into a lot of storm drains as part of the TMDL project.

three years of funding through the Office of Responsible Growth at CT Office of Policy and Management. The Academy, a partnership of CLEAR, the CT Bar Association, and the Connecticut Chapter of the American Planning Association, provides training for local land use commissioners on basic skills needed to make sound land use decisions. With support from the University, the Academy will continue at least through 2009, albeit at a reduced level. We hope to restore and even enhance the Academy in the future.

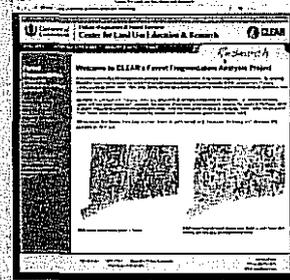
► **A new publication on riparian buffers** is available from the CT NEMO and Sea Grant programs for coastal landowners. The pamphlet, "A Planting Guide for Riparian Sites along the Connecticut Coast," describes Connecticut's coastal habitats, the functions and importance of buffers to these habitats, and how to plant a buffer. A companion piece listing plants appropriate for a variety of coastal habitats will be available soon.

► **CLEAR associate director receives national recognition.** The Association of Public Land Grant Universities (APLU) has selected CLEAR Associate Director Chet Arnold to receive the Excellence in Extension award in the Northeast Region. The award is presented annually to an individual who has strived throughout his/her career to achieve benchmarks reflective of excellence in extension educational programming. Chet is being recognized for his work in co-founding and running the CT NEMO program, the National NEMO Network and CLEAR.

He is the first recipient of this award from UConn or even New England.

► **Two CLEAR stalwarts retire.** The state retirement incentive plan claimed two of CLEAR's most accomplished educators, Jim Gibbons and Sandy Prisloe. Jim, a Land Use Planning Educator, was with UConn Extension for 35 years, concentrating on helping land use decision makers across the state on issues from basic responsibilities to open space planning to farmland protection. Jim was also the co-founder of the NEMO Program, and a principal of the Land Use Academy. Sandy, the University's Geospatial Technology Extension Specialist, was a pioneer of GIS (geospatial information systems) technology in the state and the region, and founded CLEAR's Geospatial Technology Program. Although much of their educational programs will continue in some fashion, the absence of Jim and Sandy will be felt in CLEAR programs for a long time. ☺

CLEAR Website clear.uconn.edu



The CLEAR website has been undergoing some renovations over the past few months and should be completed this fall. Some advantages to the updated website include faster page loading times, greater accessibility (for persons with disabilities), simplified page navigation and of course, a snazzy new look. Check it out!

Tools

A National Low Impact Development Atlas Online

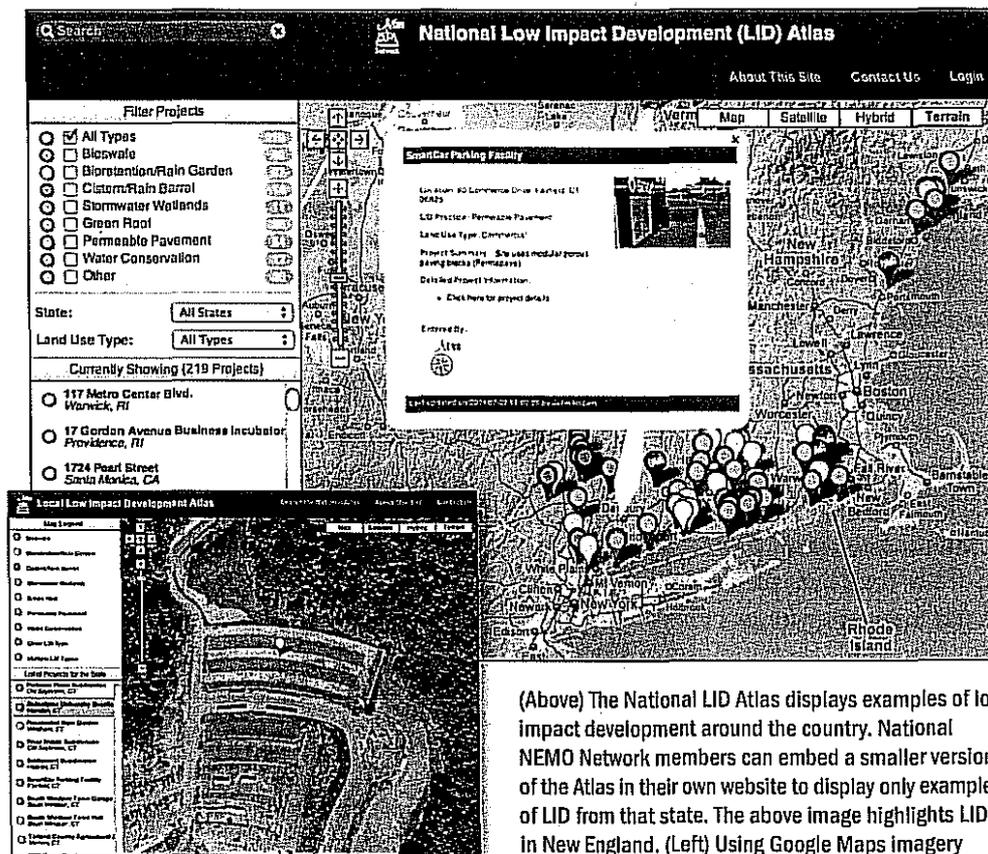


CLEAR's National NEMO Network has recently launched the Low Impact Development (LID) Atlas, a sophisticated website that is intended to show

LID practices from around the country in a unique, interactive way. LID refers to a number of stormwater management practices, like grass swales, rain gardens, permeable pavements and green roofs that reduce runoff and help to protect water resources from the impacts of nonpoint source pollution.

The new Atlas is a "mashup," using Google Maps in combination with local data to create a searchable map that covers the entire country (see related cover article, "Mashup" Madness). The Atlas was developed by a partnership of the Connecticut and California NEMO programs, and is coordinated by the National NEMO Network "Hub" at CLEAR. The NEMO Network is now comprised of 32 programs in 30 states, all adapted after UConn's original NEMO program.

The most advanced feature of the Atlas is that all 32 NEMO programs and their partners can enter data, photos and links



(Above) The National LID Atlas displays examples of low impact development around the country. National NEMO Network members can embed a smaller version of the Atlas in their own website to display only examples of LID from that state. The above image highlights LID in New England. (Left) Using Google Maps imagery users can zoom into a birdseye view of the practices. Seen here is Quinnipiac University's permeable overflow parking lot.

for LID practices in their own state, and have them immediately appear on the national site. Thus, the hope is that within a year's time the national map will be festooned with the many-colored markers that mark the spot of an LID practice. "We're hoping for at least 500 entries by the end of the year," says Dave Dickson, NEMO Network coordinator. He adds that "this is an excellent example of the

power of the Network to create unique educational products. Not many organizations could pull off something like this, and we did it with a minimal budget, just using the collective abilities of our network members." ☺

Visit the National LID Atlas at: clear.uconn.edu/tools/lidmap

"Mashup" Madness continued from cover . . .

conducted in the spring by GTP, and a Northeast Region workshop for Land Grant and Sea Grant staff was held at the UConn Groton campus this past June. The workshop was a big success, and another is planned for Portsmouth, New Hampshire in October.

"Mashup technology is relatively easy to learn, even if you're not a GIS expert, and

it's so flexible that it can be used for a whole range of applications," says Cary Chadwick, GTP's principal mashup trainer. CLEAR hopes to obtain funding to continue these workshops, both instate, regionally and even nationally.

For more information, contact Cary Chadwick at: cary.chadwick@uconn.edu ☺

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