

**AGENDA**  
Inland Wetland Agency  
Regular Meeting  
Monday, November 1, 2010  
Council Chambers, Audrey Beck Building

Call to Order:        7:00 PM

Review of Minutes of Previous Meetings and Action Thereon:

10.04.2010 - Regular Meeting

Communications:

Conservation Commission: (No referrals from last meeting.)  
GM monthly business memorandum

Old Business:

None.

New Business:

None.

Reports of Officers and Committees:

Other Communications and Bills:

1. The Habitat, Fall 2010
2. CT Wildlife, September/October 2010
3. DEP: DVD Training Video - 2 copies are available for circulation
4. 10-15-10 Letter from R. Miller re: Campus Drainage Master Plan,  
Eagleville Brook TMDL and the Swan Lake Outfall Improvement Project

Adjournment:

PAGE  
BREAK

**DRAFT MINUTES**  
**MANSFIELD INLAND WETLANDS AGENCY**  
Regular Meeting  
Monday, October 4, 2010  
Council Chambers, Audrey P. Beck Municipal Building

Members present: R. Favretti (Chairman), M. Beal, J. Goodwin, K. Holt, G. Lewis (7:05), P. Plante, B. Ryan,  
Members absent: R. Hall, B. Pociask  
Alternates present: F. Loxsom, K. Rawn  
Alternates absent: V. Stearns  
Staff present: G. Meitzler (Wetlands Agent)

Chairman Favretti called the meeting to order at 7:01 p.m. and appointed alternates Rawn and Loxsom to act in member absence.

**Minutes:**

9-7-10 – Beal MOVED, Plante seconded, to approve the 9-7-10 minutes as written. MOTION PASSED UNANIMOUSLY.

9-16-10 Field Trip- Ryan MOVED, Holt seconded, to approve the 9-16-10 field trip minutes as written. MOTION PASSED with Beal, Holt, Favretti, Ryan and Rawn in favor and all others disqualified.

**Communications:**

The 9-15-10 draft Conservation Commission minutes and the 9-28-10 Wetlands Agent's Monthly Business report were noted. Favretti asked Meitzler for an update on the Mirror Lake Dredging that was scheduled to be completed this summer. Meitzler reported that certain issues related to CT-DEP approval have yet to be resolved; hence the delay.

Holt MOVED, Ryan seconded, to add to the agenda under New Business a new application File W1463, Storrs Agricultural Experiment Station. MOTION PASSED UNANIMOUSLY.

**Old Business:**

**W1462 - Town of Mansfield - Laurel Lane bridge replacement**

Holt MOVED, Ryan seconded, to grant an Inland Wetlands License under the Wetlands and Watercourses Regulations of the Town of Mansfield to the Town of Mansfield (file no. W1462), for replacement of the Laurel Lane Bridge over the Mount Hope River, on property owned by the applicant, located approximately 725 feet east of CT Route 89, as shown on a map dated 8/2/10 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. Appropriate erosion and sedimentation controls (as shown and stated on the plans) shall be in place prior to construction and maintained during construction and removed when disturbed areas are completely stabilized.

This approval is valid for a period of five years (until October 4, 2015), unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins, and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment. MOTION PASSED UNANIMOUSLY.

**New Business:**

**W1463 - Storrs Agricultural Experiment Station- Schoolhouse Brook Park**

John C. Clausen, Natural Resource & Environment Professor at the University of Connecticut, reviewed the proposal to treat nine 20'x 20' plots of phragmites in Schoolhouse Brook Park. The phragmites will be covered with black plastic for various periods of time to determine the most effective length of time for this treatment. Clausen added that the proposal includes involving E.O. Smith Vocational Agriculture students in all steps of this research project. He related that the DEP determined that this is a conservation activity which is exempt from DEP permits and he expects to receive a letter stating so. He also has applied for a parks and recreation permit from Jennifer Kaufman.

Favretti asked Clausen how the covered plots will affect wildlife. Clausen indicated that they expect no impact to larger wildlife, but the smaller amphibians and micro-organisms may be affected.

Beal questioned how long it will take for the phragmites to grow back and if there are any plans to control it beyond the experiment. Clausen stated that tracking re-growth is part of their research.

Loxson confirmed with Clausen that no herbicides will be applied.

Clausen stated that 6 millimeter plastic was chosen in response to Holt's question regarding plastic thickness.

Favretti noted no further questions or discussion. Holt MOVED, Ryan seconded, to permit the Storrs Agricultural Experiment Station to proceed with a research program, on the Harrison Property within the Schoolhouse Brook Park (a town-owned property located at the northeast corner of the Clover Mill and Storrs Road intersection) to investigate the control of the invasive species phragmites within wetland areas, as described in information on the planned program submitted for review (dated May 26, 2010).

The Agency finds this work to be consistent with Section 4.2 of the Mansfield Wetlands Regulations that provides for non-regulated status for conservation of vegetation and wildlife, and to encourage wildlife and vegetation management.

This program stands to be of broad benefit to wetlands, and is intended to achieve control of this widespread invasive species without the use of pesticides in a manner that should be useful to individual homeowners.

This approval is valid for a period of five years (until October 4, 2015), 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 three years. Any extension of the activity period shall come before this Agency for further review and comment. MOTION PASSED UNANIMOUSLY.

**W1414 - RF Crossen Contractors LLC - Storrs Rd - subdivision bond release.**

Holt MOVED, Beal seconded, to release the \$5,000.00 bond held by the Town of Mansfield, to R.F. Crossen Contractors, LLC (File W1414) upon the completion of the 6-lot subdivision, Windwood, located on Route 195-Storrs Road.

There is one remaining condition to be addressed before granting the release: all silt fencing shall be removed from throughout the site. MOTION PASSED UNANIMOUSLY.

**Other Communications and Bills:**

Rawn noted that he has signed up for the DEP Training Segment 3.

**Adjournment:**

Favretti declared the meeting adjourned at 7:31 p.m.

Respectfully submitted,

Katherine Holt, Secretary

Memorandum:

October 26, 2010

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

**W1419 - Chernushek - hearing on Order**

3.10.09: The hearing on the Order remains open and should continue until the permit application under consideration is acted upon.

(The Order was dropped on approval of the application required in the Order.)

4.30.09: Former rye grass seeding is beginning to show green. I spoke with Mr. Chernushek this afternoon who indicated health problems that delayed his starting but indicated he will be working this weekend. I will update on this Monday evening.

5.26.09: A light cover of grass growth has come in. Mr. Chernushek indicates health problems and two related deaths have delayed his start of work since the permit approval was granted. It appears that some light work has started. He has further indicated that he will start a vacation on June 22, 2009 to finish the work.

6.13.09: Work is underway.

6.21.09: Bulldozer work has been completed - finish work remains. The additional silt fencing has been placed along the northerly wetlands crossing, and the additional pipe under the southerly crossing has been installed. Remaining work includes finish grading along edges, spreading stockpiled topsoil, and establishing grass growth.

7.01.09: I spoke with Mr. Chernushek who indicated he expects work to be completed by September 1, 2009. (Site photo attached).

9.03.09: Mr. Chernushek has been working on levelling and grading. The formerly seeded areas have become fairly thick growth surrounding the central wet areas. He has further indicated that with the combination of weather and the slower moving of earth with the payloader compared to the earlier rented bulldozer has led him to contact contractors for earth moving estimates which have not yet been received. The site is not yet finished but has remained quite stable.

9.12.09: I met with Mr. Chernushek today and discussed again what his plans are for stabilizing this work site.

10.01.09: Mr. Chernushek indicated he has not heard back from the contractor he had spoken with about removing material, and is in progress of contacting others. In discussion is removal of material from the site either within the 100 cubic yard limit or obtaining a permit for such removal.

10.28.09: Mr. Chernushek has indicated he has made arrangements with DeSiato Sand & Gravel to remove 750 cubic yards of material. Staff is in the process of clarifying permit requirements.

**W1445 - Chernushek - application for gravel removal from site**

11.30.09: Packet of information representing submissions by Mr. Chernushek, Mr. DeSiato and myself is in this agenda packet as Mr. Chernushek's request for modification.

12.29.09: Preparation of required information for PZC special permit application is in progress. Tabling any action until the February 1, 2010 meeting is recommended.

1.12.10: 65 day extension of time received.

- 2.18.10: No new information has been received.
- 2.25.10: This application has been **withdrawn**.
- 6.30.10: As viewed from the adjacent property, the upstream and downstream areas have grown to a decent protected surface. I did not see indication of sediment movement.
- 10.26.10: A sale of the East portion of the Chernushek property has been in negotiation.

**Mansfield Auto Parts - Route 32**

- 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.
- 11.30.09: Inspection - no vehicles are within 25' of wetlands.
- 12.28.09: There are two cars that need to be moved. Mr. Bednarczyk indicates their payloader is down for repairs and the cars will be moved as soon as it is repaired.
- 1.27.10: No change - the payloader is apart with parts on order to complete repairs. It is of 1986 vantage and finding parts is a major proposition.
- 2.18.10: Same - they are in the process of rebuilding the engine on the payloader.
- 3.30.10: Same - Mr. Bednarczyk indicates a continuing problem finding engine parts.
- 4.13.10: Owner indicates the payloader is operating again.
- 4.15.10: Owner indicates he will have the cars moved this week.
- 4.23.10: No vehicles are within 25' of wetlands.**
- 5.17.10: Inspection - no vehicles are within 25' of wetlands.
- 6.02.10: Inspection - no vehicles are within 25' of wetlands.
- 6.23.10: Inspection - no vehicles are within 25' of wetlands.
- 7.15.10: Inspection - no vehicles are within 25' of wetlands.
- 9.01.10: Inspection - no vehicles are within 25' of wetlands.  
Mr. Bednarczyk has started removing tires from the westerly part of his site using roll-off containers. With this arrangement a moderately steady rate of removal of the tires should be possible to maintain until the tires are completely removed.
- 9.28.10: Inspection - no vehicles are within 25' of wetlands.  
Tire removal is continuing with 1 to 2 roll-off containers being removed per month.
- 10.07.10: Inspection - no vehicles are within 25' of wetlands.  
Tire removal has been continuing.

FALL 2010

Volume 22

Number 3

# THE HABITAT

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



CACIWC's 33RD ANNUAL MEETING & ENVIRONMENTAL CONFERENCE

NOVEMBER 13, 2010

ADMINISTRATIVE, LEGAL AND SCIENTIFIC SESSIONS FOR CONSERVATION & WETLANDS COMMISSIONERS AND AGENTS

In response to your requests, a selection of workshops is offered for new as well as experienced commissioners. Three workshops are offered in each of these four areas:

- ★ Open Space & Resource Conservation
- ★ Land Use Law & Legal Updates
- ★ Conservation Biology, Issues & Updates
- ★ Commission Administration & Procedures

See pages 8 & 9 for the complete list of workshops.

## H. Curtis Spalding, U.S. Environmental Protection Agency Regional Administrator, to Address CACIWC's Annual Conference

H. Curtis "Curt" Spalding will be the keynote speaker at CACIWC's 33rd Annual Meeting and Environmental Conference at MountainRidge in Wallingford. He will speak on "The State of the Environment in New England; 40 Years after Earth Day" to emphasize CACIWC's conference theme of "Celebrating Four Decades of Environmental Conservation and Habitat Protection".



The year 1970 and the following decade were a historic time for national, regional, state, and local efforts to promote environmental protection and conservation. From the celebration of first Earth Day and formation of the U.S. Environmental Protection Agency (EPA) in 1970, through the organization of the Connecticut Department of Environmental Protection (DEP) in 1971, and the expansion of local Connecticut commissions in 1972, profound changes were being made in the role of government on all levels in shaping these efforts.

Mr. Spalding will discuss the progress that has been made in both improving environmental quality and preserving critical habitats in New England during the forty years since Earth Day. He will emphasize the value of local wetlands and conservation commissioners and staff in continuing their local habitat preservation efforts in partnership with state and federal agency activities.

Mr. Spalding has extensive experience in the environmental protection field as an advocate, policy analyst, and administrator. For almost 20 years, he served as Executive Director of "Save The Bay" in Rhode Island, a nationally recognized, 20,000-member environmental advocacy and education organization. He established the Narragansett BayKeeper and Habitat Restoration programs and oversaw the successful completion of the \$9 million Explore The Bay Campaign. Spalding

received his bachelor's degree from Hobart College and an M.P.A. from SUNY at Albany in Albany, NY.

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## Municipal Inland Wetland Commissioners Training Program - 2010

The CT DEP's 2010 Municipal Inland Wetland Commissioners Training Program Segment 3 will be held this fall from mid-October through mid-November. This all-day workshop will provide participants with an introduction to the rapidly expanding world of geospatial data and geographic information systems (GIS). The day will begin with an introduction to geospatial data and the science behind GIS. Next, a GIS tool created for Connecticut's municipalities, known as CTECO (Connecticut Environmental Conditions Online), will be discussed along with hands-on activities. The day will continue with a lecture on the importance of municipal parcel data including a demonstration of a GIS visualization tool that can help commissioners and staff understand and simulate land-use change in three dimensions.

Finally, the program will end with the Connecticut Agricultural Experiment Station talking about the utility of GIS for ecological research. The presentation will focus on aquatic invasive species in Connecticut's lakes and ponds and will show how GIS can improve early detection and allow a rapid response to this problem.

## It's Your Environmental 911 Call!

Your Environmental Toolkit for Properly Assessing and Addressing Development Proposals

CACIWC is pleased to provide Conservation Commissions with a new environmental toolkit pamphlet to help commissioners properly assess development proposals that may come before their town. The pamphlet includes:

- A 911 ENVIRONMENTAL CONTACT LIST
- How to be Proactive and Ready before the Environmental 911 call
- How to Properly address the potential Environmental Emergency and Professionally respond to the call

The Environmental 911 pamphlet can be viewed and downloaded from [caciwc.org](http://caciwc.org).

*More Resources, page 15*

*Editor's Note: Conservation and Inland Wetlands Commissions can play a critical role in protecting rare and endangered plants and animals. Conservation Commissions can make identification of endangered species and their natural habitats a priority during inventory and research of undeveloped areas of the town, and then use that information to recommend their protection during land use decision processes. In this issue Ed Pawlak of Connecticut Ecosystems LLC discusses techniques for using GPS technology to enhance rare species survey (page 10). Also, in question/answer format, Attorney Janet Brooks and Ed Pawlak summarize how to access the DEP's Natural Diversity Data Base maps of rare species and natural communities locations, and review an Inland Wetlands Commission's legal protocols for protecting endangered species.*

## JOURNEY TO THE LEGAL HORIZON by Attorney Janet P. Brooks



*In this article Attorney Janet Brooks departs from her customary format and engages in a dialog with Ed Pawlak of Connecticut Ecosystems LLC reflecting on his article in this issue about gathering data on rare species and relevance to inland wetlands commission decisions.*

*Janet:* You mention that the DEP database, known as the Natural Diversity Data Base (NDDB), is expanded as new information is available. How accessible is that database? Is it hard to use?

*Ed:* Now that the DEP has placed the NDDB maps on the DEP website, it is very easy to access them. The NDDB is a compilation of all known current and historic listed species (Endangered, Threatened, and Special Concern) records and natural communities. To determine whether there are any NDDB records on or near a subject property, go to the CTDEP Endangered Species web site, [www.ct.gov/dep/nddbrequest](http://www.ct.gov/dep/nddbrequest), click on "About NDDB Maps". Scroll down and Click on "View Maps by Town" at the bottom of the page. Choose the town from the drop down menu, then click "Go". Click "Download Map" (note the date when the map was last updated). This will bring up a USGS topographic quadrangle map that includes the town of interest. Click the "+" button on the toolbar at the top of the page to zoom in on the map. You will note that road names are

visible at a high magnification, which will enable you to locate the property of interest.

The gray-shaded polygons on the map indicate the presence of one or more current or historic listed species records, or natural communities, somewhere inside the polygons. The exact location of a listed species record is not disclosed on the maps to discourage illegal collecting. In order to learn more information on the record(s), go to the CTDEP Endangered Species web site [www.ct.gov/dep/](http://www.ct.gov/dep/)

[nddbrequest](http://www.ct.gov/dep/nddbrequest), click on "Review/Contributing Requests". Scroll to bottom of page and click on either "Word" or "PDF" under Natural Diversity Data Base Review and Request Form. These files contain background information on the NDDB program, along with the request form that must be filled out and mailed to CTDEP. The CTDEP will

reply with information on the species record(s) on or near the property of interest.

An NDDB environmental review is required for regulated activities that require State permits, projects that use State funding, and activities performed by the State. The DEP encourages municipal land use commissions to use the environmental review process and to consider impacts to state listed species when making land use decisions.

*Ed:* (continuing) Once a listed species is found within a wetlands or watercourse in a proposed

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project area is that information alone sufficient to deny a wetlands application?

*Janet:* No. What we learned from River Bend Associates, Inc. v. Conservation & Inland Wetlands Commission, 269 Conn. 57 (2004) is that there must be evidence of actual adverse impact. A “concern” about the species’ fate is not likely to be sufficient. With regard to a listed species that exists on a site, the question is: is there expert opinion in the record that “connects the dots” between the species and adverse impact to it at that site? If there is no adverse impact to the species or if mitigation can eliminate that impact, the existence of the species at the site won’t be an obstacle to granting a permit.

*Ed:* Let’s say there is a documented listed species on a property proposed for development. Does a wetlands agency need to give this more weight than it would a more common, unlisted species?

*Janet:* Not necessarily. That’s because of the unique way in which wildlife is considered by wetlands agencies. We need to look at sections 22a-41(c) and 22a-41(d) of the General Statutes. (If your agency’s regulations track the DEP model regulations, you’ll find them in sections 10.5 and 10.6 of the regulations.) Section 22a-41(c) instructs us that animal and plant life is included in the definition of wetlands and watercourses. However, section 22a-41(d) limits wildlife consideration when the proposed activity is outside of a wetland or watercourse. An agency can’t deny an application or impose conditions in granting a permit on the basis of wildlife “*unless the proposed activity will likely impact or affect the physical characteristics of such wetlands or watercourses.*”

If the regulated activity is proposed in a wetland or watercourse, the agency can deny or condition a

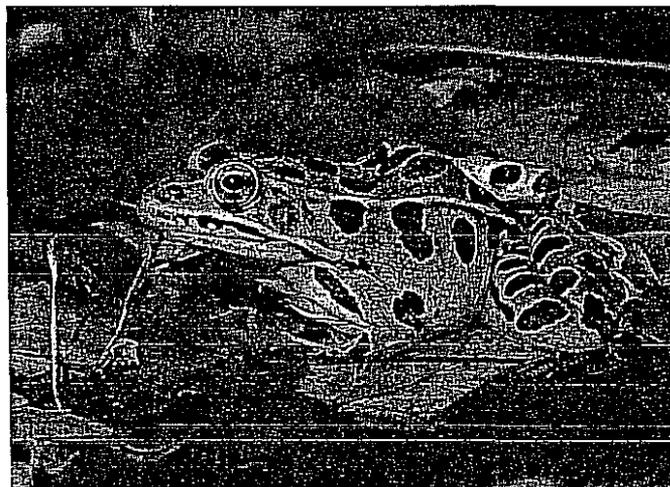
permit because of actual adverse impact to wildlife, listed species or unlisted.

The other scenario occurs when the proposed activity is in the upland review area. Then we’re in a situation where section 22a-41(d) applies, because the regulated activity is not sited in a wetland or watercourse. Even if the proposal threatens to eliminate the entire endangered species population, whether three individuals or three thousand, the wetlands agency *can’t* deny the application or place conditions in a permit because of a likely impact on the wildlife *unless* there is evidence that the proposal will likely impact the physical characteristic of a wetland or watercourse.

*Ed:* If a wetlands agency finds that there will be a likely impact to the physical characteristics of a wetland or watercourse as a result of a regulated activity outside of wetlands and watercourses, then are they free to consider any likely impact to plants and wildlife across the property, not just those that occur in the wetland/watercourse that will be physically impacted? Or can they only focus on the plants/wildlife that occur in the wetland/watercourse that will be physically impacted?

*Janet:* That precise case hasn’t yet been decided by the Supreme Court. But there is some Supreme Court guidance from the *Unistar Properties, LLC*<sup>1</sup> case. The court concluded that a wetlands agency may request information about wildlife in the

upland review area and beyond *because the effect of development on the wildlife in those uplands may affect the physical characteristics of wetlands or watercourses.* The court did also warn that if an agency sought wildlife information from an area so remote as to be unlikely to cause an effect on wetlands or watercourses, the agency action would be arbitrary and capricious - that is, illegal.



*Leopard Frog - An Endangered Wetland Species. Photo Credit: Peter Picone, DEP Wildlife Department*

In a case released this summer, the Appellate Court affirmed the denial of a golf course and houses in a coastal forest by the Old Saybrook wetlands agency. In *River Sound Development, LLC v. Inland Wetlands & Watercourses Commission*, 122 Conn. App. 644 (2010) the court upheld the agency's denial based on the fact that the loss of wood frogs would have a negative consequential effect on the physical characteristics of the wetlands. The court did not identify or distinguish whether the wood frog is a listed species.

*Ed:* (It is not.)

*Janet:* The court went through an elaborate explanation how an adverse effect on the physical characteristic of the wetlands would come about. Relying on and quoting Michael Klemens, *the applicant's expert*, the court pointed out the substantial evidence to support that conclusion: "the wood frogs remove a lot of the detritus in the pools. The leaves' energy is transported through the wood [frog] tadpoles . . . the actual quality of the water, physical parameters of the water, are affected by wood frog tadpoles."<sup>2</sup>

Counsel for the Town of Essex, an environmental intervenor in the application which actively participated in the public hearings before the Old Saybrook wetlands agency, relied on a footnote the Supreme Court's decision in *AvalonBay Communities, Inc. v.*

*Inland Wetlands Commission*, 266 Conn. 150, 163 n. 19 (2003) to argue its case about the wood frogs. The court in *AvalonBay* held that wildlife was not within the jurisdiction of wetlands agencies, with one stated

exception: "There may be an extreme case where a loss of or negative impact on a wildlife species might have a negative consequential effect on the physical characteristics of a wetland or watercourse, but that is not the situation in the present case." In talking to the counsel for the Town of Essex I learned that there were hundreds of documented wood frog tadpoles in the Old Saybrook application. In the *AvalonBay* case there were only a handful of documented salamanders.

*Ed:* Do you mean that the size of the population matters in every instance when wildlife is considered?

*Janet:* No. In *River Sound*, the argument was made that the wood frogs constitute that "extreme example" where the loss of wildlife will have a negative consequential affect on the physical characteristic of a wetland. Since the legislature amended the wetlands statute - in the 2004 legislative session that followed the fall 2003 issuance of

the *AvalonBay* case - any likely impact or effect on the physical characteristics of wetlands or watercourses from

## Sources for Endangered Species Information

**CT DEP Endangered Species Web Site:** [www.ct.gov/dep/nddbrequest](http://www.ct.gov/dep/nddbrequest)

**NatureServe Explorer** - an authoritative source for information on more than 70,000 plants, animals, and ecosystems of the United States and Canada. Explorer includes particularly in-depth coverage for rare and endangered species. <http://www.natureserve.org/explorer/>

**The Connecticut Butterfly Atlas Project** - The Yale Peabody Museum's Division of Entomology is host to the website of the Connecticut Butterfly Atlas Project (CBAP). [http://www.peabody.yale.edu/collections/ent/ent\\_cbap.html](http://www.peabody.yale.edu/collections/ent/ent_cbap.html)

The Connecticut Butterfly Atlas Project is sponsored by the State Geological and Natural History Survey of the Connecticut Department of Environmental Protection, the Connecticut Butterfly Association, and the Connecticut Entomological Society.

**Chapter 495 Endangered Species Connecticut General Statutes** - (CGS) Section 26-303 Species <http://cga.ct.gov/2009/pub/Chap495.htm#Sec26-303.htm>

**Endangered Species Slide Program** - Photos and facts about endangered species and their management in Connecticut (41 slides). <http://www.depdata.ct.gov/wildlife/slideshows/endedangered/endedangered.asp>

**CT DEP Endangered and Threatened Species Fact Sheets** - Over 40 downloadable Fact Sheets with pictures. [www.ct.gov/dep/nddbrequest](http://www.ct.gov/dep/nddbrequest)

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the proposed activity is sufficient to authorize a wetlands agency to deny or condition a permit because of a likely effect on wildlife. It is not necessary that the physical effect on the wetlands or watercourses result from an impact to wildlife.

*Ed:* So, the impact to the physical characteristics of the wetland or watercourse can come from activities unrelated to wildlife impacts, such as erosion during construction or elevated water temperatures due to tree clearing around the wetland/watercourse. Right?

*Janet:* Exactly. The Old Saybrook wetlands agency's denial was upheld based on the evidence in the record that the loss of the wood frog tadpoles will likely impact the physical characteristic of the vernal pools. The agency could have relied on, *if there was expert evidence in the record*, siltation from construction activities, for example. In order to establish this "extreme case" (based on the footnote in *AvalonBay*) I believe the number of tadpoles was relevant. It's not at all clear that the loss of a handful of wood frog tadpoles would bring about the same physical effect on the physical characteristics of the vernal pool.

*Ed:* Let's say there is a confirmed box turtle population on a property (Species of Special Concern). This is a facultative wetland user that mostly is found in well drained upland habitats. Can a wetlands agency deny a permit on this property due to box turtle impacts? There are many listed plant and wildlife species that are not obligate wetland users (e.g., bobolinks, sandplain insects, etc.).

*Janet:* To begin, we would need to know whether the proposed activity will occur in the wetlands or in the upland review area and beyond. If the activity will occur in a wetland, then the agency may base a denial on an impact to the confirmed box turtle population *or any other confirmed animal population - if there is substantial evidence (expert opinion) of a likely actual adverse impact to the species*. If the proposal occurs in the upland review area or beyond, the agency first must determine if there are likely effects or impacts on the physical characteristics of the wetlands or watercourses. Is this how a wildlife biologist would consider impacts to wildlife? No, but it is how a wetlands agency should consider the evidence.

A biologist may rate an endangered species more highly than a common one. The wetlands law does

*Legal, continued on page 7*

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Legal, continued from page 6

not. The wetlands law does allow the agency broad latitude in considering wildlife, including unlisted species, when the regulated activity will occur in wetlands and watercourses, but constrains that consideration when the activity is not.

Similar to other provisions in the wetlands law, the consideration of wildlife is not "intuitive." It's not what "feels" important that counts. Which path does the wetlands law dictate the agency follow? If it is the constrained path, the record must contain substantial evidence that the impact will likely negatively impact the physical characteristics of the wetlands. The *River Sound* case is one example of how an agency's consideration of wildlife impacts was upheld. It will probably take another generation of court cases to work out the wrinkles in the 2004 legislative amendment.

*Janet:* Here are two take-away points:

- The wetlands law is egalitarian. Adverse impacts to wildlife, listed species or not, can be the basis to deny or condition a permit when the regulated activity occurs in a wetland or watercourse. Conversely, when the regulated activity occurs outside a wetland or watercourse, adverse impact to wildlife, listed species or not, that are found in a wetland or watercourse cannot be the basis to deny or condition a permit *unless* the regulated activity will likely impact the physical characteristics of a wetland or watercourse.
- Recent case law affirms that, with enough expert evidence in the record, a wetlands agency can successfully base a denial of a permit for an activity occurring outside of a wetland on the loss of wildlife that in turn will cause a physical impact to a wetland.

*Janet P. Brooks practices law in East Berlin, Connecticut and writes on wetlands issues on her blog at [www.ctwetlandslaw.com](http://www.ctwetlandslaw.com).*

#### (Endnotes)

1 *Unistar Properties, LLC v. Conservation & Inland Wetlands Commission*, 293 Conn. 93 (2009). For readers who wish to read the case online, I have written blog entries about two online methods that can be used to find Connecticut cases. See entries of January 29, 2010 and February 3, 2010 on my blog at [www.ctwetlandslaw.com](http://www.ctwetlandslaw.com).

2 *River sound Development, LLC v. Inland Wetlands & Watercourses Commission*, 122 Conn. App. 644, 655 (2010). The *River Sound* case and the *AvalonBay* case are hyperlinked in the July 30, 2010 blog entry. 🌿

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# CACIWC's Environmental Conference Workshops

## — SESSION 1 — (\* Denotes Advanced Workshop)

### A1. "Promoting CT Greenways & Trails"

by Representatives of the Greenways Council & Laurie Giannotti, CT DEP Liaison to the CT Greenways Council

A growing number of greenway open space corridors are being recognized throughout Connecticut. Greenways can connect existing protected areas, preserve a scenic ridge, waterway, or other scenic landscape, and provide access to natural areas for outdoor recreation. This workshop will review highlights of the state's existing greenways and scenic trails and review the process of preparing nominations for official state greenway designation.

### \*B1. "Wetlands Law in 2010: Case Law, Legislative & Regulatory Update"

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

This trio of wetlands attorneys has been brought back by popular demand to keep you current with the latest state Supreme Court and Appellate Court cases. You'll hear about an enforcement case involving the farming exemption, and the Old Saybrook wetlands agency's successful denial of the wetlands application filed by The Preserve in which the Appellate Court upholds jurisdiction over areas outside the wetlands/watercourses and upland review areas and affirms the denial based on wildlife concerns.

### C1. "Invasive Plant Update"

by Donna Ellis, Uconn Extension Educator and Co-Chair, Connecticut Invasive Plant Working Group (CIPWG)

The Connecticut Invasive Plant Working Group gathers and conveys information on the presence, distribution, ecological impacts, and management of invasive species. This workshop will highlight the challenges faced by municipal land-use commissions and staff in the identification and control of invasive plants as well as outlining methods of promoting growth of native species as part of local open space management planning.

### \*D1. "Working with the CT Siting Council"

by Linda Roberts, Exec. Director & Melanie Backman, Staff Attorney, CT Siting Council

This workshop will review the composition, jurisdiction, and review process of the Connecticut Siting Council. Ms Roberts and Attorney Backman will outline opportunities for inland wetlands and other land-use agencies to review and comment on proposed projects being evaluated by the Siting Council. They will also discuss the different ways in which conservation commissions and other municipal boards may formally participate in the Council's adjudicatory process, including the important "pre-file" process.

## — SESSION 2 — (\* Denotes Advanced Workshop)

### \*A2. "Public Act 490 (PA 490): CT's Current Use Tax for Farmland, Forest Land and Open Space Land"

by Joan Nichols, Government Relations Specialist, Connecticut Farm Bureau Association

In 1963 the Connecticut General Assembly enacted Public Act 63-490, *An Act Concerning the Taxation and Preservation of Farm, Forest or Open Space*, commonly referred to as "PA 490". This act has become one of the most important laws to help preserve an agricultural, forest, and natural resource land base in Connecticut. This workshop will highlight key aspects of PA 490 and contents of the 2010 PA 490 Guide, published by the CT Farm Bureau Association.

### B2. "Wetlands Law, Q&A"

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

This is the question-and-answer session that you have asked that we bring back again this year! No presentation by the attorneys. Just your questions. Just their answers.

### C2. "Stopping the Emerald Ash Borer & Asian Longhorned Beetles & Other Threats to CT Forests"

by Christopher Martin, Director, CT DEP Forestry Division

Two new pests have been recently discovered that threaten Connecticut forest species. The Asian longhorned beetle (ALB) was first found near NYC in 1996, Worcester, MA in 2008 and Boston in July of this year. The Emerald Ash Borer (EAB) has recently been found within 25 miles of the Connecticut border. This workshop will review the detection and control strategies developed by the DEP and other agencies and discuss steps that local commissions and staff can take to support these state and regional efforts.

### \*D2. "Riparian Corridors: New Research, Restoration and Protection Initiatives"

by Dr. Juliana Barrett, CT Sea Grant Program, UConn & Chet Arnold, UConn, Department of Extension Center for Land Use Education and Research (CLEAR)

Riparian corridors provide many environmental benefits, including wildlife habitat and water quality protection. The workshop discusses the recent land cover study by CLEAR, showing changes to riparian corridors in CT from 1985 to 2006. Review of a recent Sea Grant & CLEAR initiative on riparian area protection in the Niantic River Watershed, and town commission participation in the project. New website tools and other resources will be demonstrated.

Open Space & Resource Conservation Track

Land Use Law & Legal Updates Track

Conservation Biology, Issues & Updates Track

Commission Administration & Procedures Track

—SESSION 3—

(\* Denotes Advanced Workshop)

**\*A3. "The Use of GPS Technology in Rare Species Surveys"**

by Edward Pawlak, Connecticut Ecosystems, LLC

The DEP Natural Diversity Data Base (NDDB) list of rare species has grown from 498 in 597. There is an ever-greater need for rare species surveys to determine whether listed species occur on properties where development is proposed. Attendees will learn how to find the NDDB maps on the internet, and how GPS technology can be used in rare species surveys. Guidance for land use agencies on how to evaluate the credibility, results and conclusions of a rare species survey will be given.

**\*B3. "Working with Your Local P&Z"**

by Attorney Mark K. Branse, Branse, Willis & Knapp, LLC

This workshop will discuss how conservation commissions can work effectively with their town's planning & zoning commission throughout the application review process. The use of local Plans of Conservation and Development to promote the long-term protection of important habitats within their town will also be discussed.

**C3. "Fishers & Moose in CT: Changing Mammal Population Dynamics"**

by Andrew LaBonte, Wildlife Biologist, CT DEP Wildlife Division

Although sporadic moose sightings were reported in Connecticut in the early 1900s multiple sightings did not begin until the 1990s with an average of six per year. DEP now estimates the Connecticut population at around 100. The fisher was reintroduced into western Connecticut starting in 1988. This workshop will provide information to help commissioners and staff respond to public inquiries, and will offer suggestions on supporting state efforts to track and study these animals and other mammalian species.

**D3. "Pesticides, Wetlands & Watercourses"**

by Bradford Robinson, Supervisor, CT DEP Pesticide Unit

Many CT towns are citing an increasing number of lakes, ponds and streams that are experiencing an overgrowth of aquatic plants. These overgrowth problems can greatly affect biodiversity and the recreational value of the water body. The workshop will describe the biology of invasive aquatic plants, including various methods of control. Federal regulations that affect pesticide use will be reviewed along with CT DEP permit requirements. The session will also provide an opportunity for local commissioners and agents to better understand their role in management of these issues.

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# Rare and Endangered Species Survey Using the GPS

“Tracking Feature” by Edward M. Pawlak, PWS, Connecticut Ecosystems LLC

We are witnessing a long-term decline in many plant and animal species across Connecticut, primarily due to habitat loss and fragmentation. Maps of current and



historic records of Endangered, Threatened and Special Concern Species are maintained by the Department of Environmental Protection (CTDEP) Natural Diversity Data

Base. These maps are updated and expanded as new records are discovered, and when species are listed or de-listed by the DEP. Every five years technical committees established by the CTDEP review the status of the species lists and recommend changes based upon their knowledge of population trends. Since its inception in 1992, the list has grown from 498 to 597 species (a 20 percent increase).

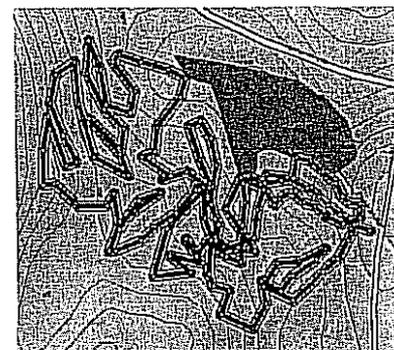
As a result of this trend, it is increasingly likely that development projects will be proposed on properties that either contain or are near a listed species record. Because of this, there is an ever-greater need for rare species surveys, conducted by qualified professionals, to determine whether listed species occur on these properties.

Municipal land use commissions and state/federal regulatory agencies must consider many factors when assessing whether the results and conclusions of a rare species survey are credible. Relevant criteria include the training and experience of the investigator(s), time of year and time of day when the survey was performed, habitats that were surveyed, and search level effort (e.g., number of survey hours, number of cover objects turned over, etc.) Weather conditions at the time of the survey (and in some cases, prior to the survey) are an important factor for some wildlife species (e.g., many reptiles and amphibians are inactive in very hot weather, and thus less likely to be seen.) A primary consideration is the habitats that

were searched during the survey, and the amount of area covered within these habitats. It is also important to understand how much of the overall project site was searched during initial reconnaissance inspections directed at identifying critical habitats that would warrant species survey efforts.

Hand-held GPS technology is revolutionizing the way that rare species surveys are conducted and reported. The “Track” feature, standard on hand-held GPS units, can create relatively accurate maps of a rare species survey route. At the start of the survey the biologist selects the Track creation unit (e.g., time or distance), as well as the Track interval (e.g., number of minutes, number of feet.)

So, for example, the GPS unit can be programmed to create a Track every time the user moves a linear distance of 100 feet, or at one-minute



intervals. The resulting Tracks data set can be printed out, superimposed on a topographic map or aerial photograph, to illustrate the survey route and the habitats that were investigated on a given date (see embedded maps.) A Track Route map tells a reviewer which habitats were investigated during a rare species survey, critical information when assessing the validity of a survey.

*Rare, continued on page 11*



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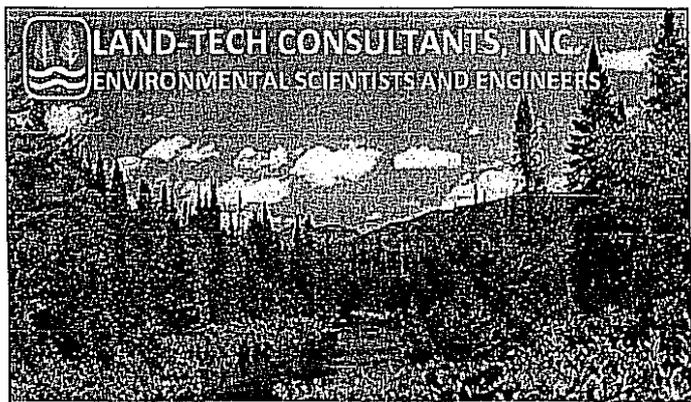
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A GPS unit can also provide important real-time spatial information to the rare species surveyor. When investigating remote sites that are distant from a road, the GPS unit can quickly bring the user to a designated survey start point. This can be accomplished by determining the latitude/longitude coordinates of the start point from topographic map software, and inputting this to the GPS unit as a Waypoint. The GPS navigation features can then be used to direct the user to the Waypoint. The user can also create a Waypoint at the vehicle at the start of a survey, allowing a for quicker exit from the field at the end of the day. These navigation features allow for more survey time, and less time wasted "bushwacking".

Many hand-held GPS units can display a USGS topographic map, or reasonable facsimile, on the screen. The Track route can be superimposed on this topographic map, providing the user with a real-time map of the route that has been surveyed at any point in time. This allows the user to adjust the travel route, if necessary, in order to thoroughly cover the survey area, and to ensure that all areas of interest are surveyed.

If a target species is observed, its exact location can be determined by creating a Waypoint on the GPS unit. The Waypoint, along with longitude/latitude, can be displayed on a topographic map for inclusion in the survey report, and in the report of the record to the CTDEP Natural Diversity Data Base.

The use of hand-held GPS technology should be an integral component of all rare species protocols.



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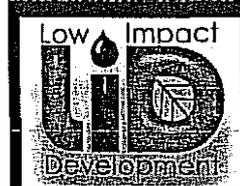
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# Water Trails Program Promotes Paddling to Protect Rivers

by Diane Edwards

**“If you paddle it, you will protect it.”**

That’s the premise behind the Water Trails Program of the Rivers Alliance of Connecticut. Begun in 2008 when Rivers Alliance merged with the newly formed Connecticut Water Trails Association, the program encourages non-motorized use of the state’s recreational waterways while promoting river conservation values.

In recent years, river advocates around the country have been establishing “water trails” as a way to encourage people to enjoy and appreciate local rivers. Tangentially, these efforts also help communities by boosting tourism and educating citizens about river-related environmental issues, such as the importance of riparian buffers and wetlands.

Sometimes called blue trails or blueways, water trails are similar to hiking trails and greenways — except, of course, that they’re on rivers or other watercourses. The American Canoe Association (ACA) uses five criteria to define a water trail:

1. The trail is a contiguous or semi-contiguous waterway or series of waterways that are open to recreational use by paddlers.
2. The trail has public access points for paddlers.
3. The trail is covered by a map, a guide, signage or a web site that is of reasonable quality and detail and is available to the public.
4. Published or printed materials for the trail communicate low-impact ethics to trail users.
5. The trail is supported or managed by one or more organizations.

Through the Water Trails Program, Rivers Alliance collaborates with national recreational entities, watershed groups, regional agencies, towns and other entities, as well as with individuals, to publicize existing and soon-to-be water trails. It serves as a clearinghouse for guidebooks, maps and other information, some of it available on the Rivers Alliance web site ([www.riversalliance.org](http://www.riversalliance.org)). The site currently lists eight designated water trails in Connecticut: the Essex Canoe/Kayak Trail, the Housatonic Valley River Trail, the Quinnipiac River Canoe Trail, the Mattabeset River Canoe Trail, the Mystic River Water Trail, the Norwalk Islands Canoe/Kayak Trail, the Old Lyme Canoe/

Kayak Trail, and the Willimantic River Trail. Rivers Alliance recently was awarded a grant to expand this site, with funds from the National Recreational Trails Program administered by the CT DEP Recreational Trails and Greenways Program.

The Water Trails Program also promotes responsible stewardship of Connecticut waterways, by

providing conferences and educational materials and supporting river-related events. Other activities of the program include demonstrating to towns and local businesses the economic value of healthy waterways, and advocating boating safety.

Rivers Alliance encourages other organizations and individuals to get involved with the Water Trails Program. For more information or to volunteer, e-mail [rivers@riversalliance.org](mailto:rivers@riversalliance.org) or call 860-361-9349.



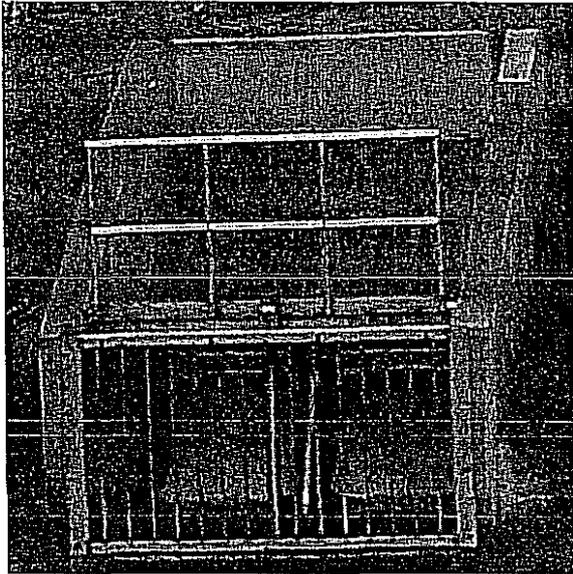
*Exploring the Mattabeset River. Photo Credits: Staff, CT River Coastal Conservation District.*



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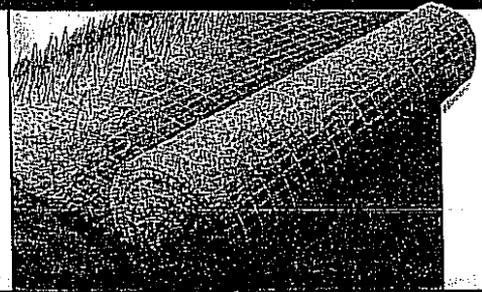
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# New Educators at UConn's CLEAR for Land Use and Water Resources

The UConn Center for Land Use Education and Research (CLEAR) is pleased to announce the hiring of a new Educator, Dr. Michael Dietz, and a new Land Use Educator, Bruce Hyde. Mike is a low impact development expert (among others things), and has returned to UConn after 4 years as an Assistant Professor and Extension Specialist with Utah State University to take over the reins of the CT NEMO Program. He also will be contributing to CT Sea Grant's sustainable coastal community development (SCCD) program. Bruce Hyde is an AICP certified planner who has worked in the planning field for over 30 years, serving in a wide variety of positions from city planner to regional planner to private sector consultant. Bruce will be heading up CLEAR's Land Use Academy, as well as developing other planning-oriented educational programs.



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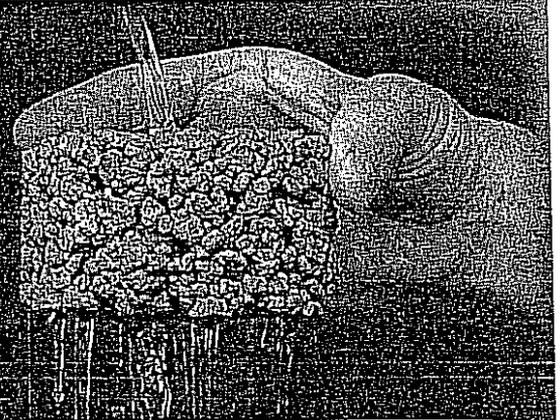
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## MORE RESOURCES

### New Web Site Provides Innovative Ways to Explore Long Island Sound

The University of Connecticut (UConn), in cooperation with CT DEP has enhanced a dynamic website that allows users to explore Long Island Sound with state-of-the-art oceanic technology and a host of new video programs.

The images and videos can be viewed at [www.lisc.uconn.edu/explorelis](http://www.lisc.uconn.edu/explorelis). The site also describes the various habitats in the Sound, discusses its history and geology, and provides information on how its environment is affected by human activity.

### The CT Department of Environmental Protection 2009 Annual Report - Protecting and Restoring Our Environment

The 2009 report is divided into two main sections. The first section highlights the Department's accomplishments in the following areas: (1) Protecting the Environment With Innovative Approaches; (2) Compliance Assurance; (3) Landscape Stewardship; (4) Clean Water; (5) Materials Management; (6) Clean Air and Climate Change Challenges; (7) The Great Outdoors; and (8) CTDEP is Green Too. The second section of the report features enforcement and permitting outcome and output measures.

To view the report, please go to <http://www.ctgov/dep/lib/dep/enforcement/reports/2009annualreport.pdf>.

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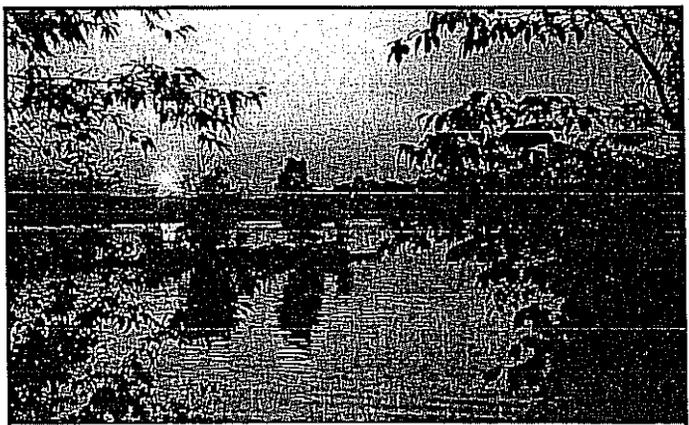
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# ★ ★ CACIWC's 33rd Annual Meeting & Environmental Conference ★ ★

## Keynote Speaker and Address

H. Curtis "Curt" Spalding, Regional  
Administrator for the U.S. Environmental  
Protection Agency (EPA) Region 1,  
New England Office,

will speak about

"The State of the Environment in New  
England; 40 Years After Earth Day"

*(See page 1)*

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*See pages 8 and 9 for details.*

## CACIWC 2010 Annual Recognition Awards

There is still time to submit your nominations  
for a CACIWC annual award. Nominations will  
be accepted until October 23, 2010 in five award  
categories:

1. Wetlands Commission of the Year
2. Conservation Commission of the Year
3. Wetlands Commissioner of the Year
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September/October 2010

# Connecticut Wildlife

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## Thank You Volunteers!

While putting together this issue of Connecticut Wildlife, I began to see a common thread. Most of the articles highlight projects in which volunteers play an important role. The Wildlife Division is fortunate to have a long list of volunteers who are ready, willing, and able to help out, even at a moment's notice. In these days of tight budgets and reduced staff, their assistance on various projects is invaluable, and for that, the Division is grateful.

The largest group of volunteers is the Conservation Education/Firearms Safety (CE/FS) instructors. Every year, over 300 instructors donate approximately 12,000 hours to conduct hunting safety courses for aspiring sportsmen and women. Some of these instructors have been involved since the inception of the CE/FS Program over 25 years ago and have trained many of the current instructors. Due to the diligent efforts of the volunteer instructor corps, the CE/FS Program continues to be a highly-rated program that was recognized by the International Hunter Education Association as meeting or exceeding national standards in hunter education.

The approximately 85 Master Wildlife Conservationists (MWCs) comprise a volunteer group that has made a significant contribution to the Wildlife Division's outreach, habitat management, and research efforts. These dedicated volunteers spend 40 hours of class time to complete the required program, and then donate back at least 40 hours (but usually more). MWCs have staffed exhibits at events; given wildlife presentations to schools and other groups; participated in wildlife surveys and goose banding; monitored shorebird nesting areas; and helped at deer check stations; just to name a few of their contributions.

Many of the exhibits and activities at the Sessions Woods Conservation Education Center would not have been possible without the support of the Friends of Sessions Woods. This volunteer organization recently cosponsored and obtained funding for the Connecticut Hunting & Fishing Appreciation Day held at Sessions Woods in September.

The list of individual volunteers is extensive. Some are "Citizen Scientists" that annually participate in bird surveys; monitor nesting bald eagles, peregrine falcons, and ospreys; act as purple martin landlords; coordinate bluebird box trails or a series of kestrel nest boxes; patrol shorebird beach nesting areas; band songbirds and raptors; participate in invasive plant removal; and the list goes on. There also are numerous groups and organizations (e.g., conservation organizations, sportsmen's clubs, scout troops, schools, nature centers) that take part in individual efforts or donate funds or services for large projects.

There isn't enough room on this page to name all of the individuals and groups and what they do, but you know who you are. The Wildlife Division appreciates all of the volunteers for their dedication and passion and for wanting to "make a difference" for wildlife.

Kathy Herz, Editor

## Cover:

The sight of a soaring osprey is a treat for visitors and residents of Connecticut's coastal areas. Read about efforts to place leg bands on young ospreys on page 4 and about migrating hawks on page 5.

Photo courtesy of Paul J. Fusco

# Learning About Wildlife Habitat at Belding WMA

Written by Jane Seymour

Spring 2010 marked the third year that students from the Vernon Public Schools have come to nearby Belding Wildlife Management Area (WMA) to spend the day learning about wildlife and their habitats. New this year was the addition of students from Rockville High School's Agricultural Education Center who volunteered to instruct the third graders at four habitat stations. The high school students were assisted by Master Wildlife Conservationists, DEP staff, and retired Wildlife Division director Dale May.

For six days, third grade students arrived in the morning and gathered under the newly constructed pavilion. They then spent the day visiting four different habitats – field, forest, stream, and vernal pool. One or two high school students, plus a volunteer or DEP instructor, were stationed at each habitat to teach the students about the importance of the habitats and what animals may be found there.

At the field station, the students saw red-winged blackbirds, tree swallows, a red-tailed hawk, and many grassland insects. Some students were lucky enough to see a garter snake before it disappeared into the grass. They discovered nesting sites, such as the ground for red-winged blackbirds, tree cavities and nest boxes for tree swallows and bluebirds, and shrubs along the edge of the field for gray catbirds.

After aging and measuring a tree at

the forest station, the students searched for wildlife signs and found chipmunk holes, deer pellets, bones, and woodpecker holes. They also learned about forest regeneration and fire dependent species, such as the pitch pine.

At the vernal pool, students found wood frog egg masses and tadpoles. They searched under logs for salamanders and other small animals. The lesson focused on the importance of vernal pools as breeding sites for wood frogs and spotted salamanders.

At the stream station, which always is a favorite, the students saw crayfish, minnows, stonefly larvae,



J. SEYMOUR, HABITAT MANAGEMENT PROGRAM (2)

Third grade students participating in a field trip to Belding WMA search under logs near the vernal pool to find salamanders.



A Rockville High School student leads third grade students from Vernon into the forest to look for signs of wildlife.

two-lined salamander eggs, and, the highlight of the day, a deer carcass.

These field trips to Belding WMA tie in with the science framework for third grade, which requires students to learn that "organisms can survive and reproduce only in environments that meet their basic needs." To help achieve this requirement, the students

learn that animals live in different habitat types, as well as how some animals protect themselves from predation, such as the wood frog blending in with leaves on the forest floor and the spotted salamander sporting warning coloration. By the end of the field trip, students are able to identify animals that use each of the habitats they visited and they are well aware of what happens to an animal when its habitat disappears.

Educating young people about wildlife and conservation was one of the main goals set forth by Max Belding when he donated his property to the DEP. This cooperative program with the Vernon Public Schools is a big step in fulfilling Mr. Belding's vision.

*Jane Seymour is the Steward at the Belding Wildlife Management Area*

# Young Ospreys Banded to Aid Monitoring

The osprey is one of several wildlife species in Connecticut that has rebounded from a precipitous decline. About 40 years ago, ospreys were a rare sight in our state. Today, this hawk is flourishing along the coastline and is even nesting regularly at some inland wetland areas. This recovery would not have been possible without the helping hands of many who erected artificial nesting platforms in coastal habitats and who also monitor the success of nesting pairs.

An extension of the monitoring effort involves attaching leg bands on chicks hatched in Connecticut. Bird banding is a universal and indispensable technique for studying the dispersal, migration, behavior, social structure, life-span, survival rate, reproductive success, and growth of bird populations. The banding of ospreys in Connecticut dates back to the 1950s and has been accomplished by a variety of dedicated licensed bird banders. Occasionally, if time permits, the DEP helps out by band-



This young osprey, in a nest at Hammonasset Beach State Park, was fitted with an identifying leg band before it was old enough to fledge from the nest.

Utilities provided a bucket truck so that the tall platforms could be reached safely. Jeff Lyon and Jim Murphy, of Groton

Utilities, were on hand to help with the operation of the truck. The volunteers carefully held the young ospreys so that Julie could affix the bands. In all, 17 nests were checked. Six nests were empty, but the other 11 produced a total of 21 young, which were banded and returned to the platforms.

Julie also banded ospreys

at Hammonasset Beach State Park in Madison with the help of several enthusiastic volunteers. The crew walked carefully through the marshes, with a ladder in tow, to check four nesting platforms that had been monitored throughout the nesting season. The ladder was used to reach the top of the platforms to retrieve

the chicks. Unfortunately, two of the nests had failed and it is believed that the young were taken by a predator, possibly a great horned owl. The other two nests produced five chicks.

Data from the young ospreys banded in Connecticut in 2010 by Julie and the other licensed bird banders will be submitted to the Bird Banding Laboratory, which is part of the North American Bird Banding Program. Some of these birds may be encountered again – possibly if found injured, dead, or observed through a spotting scope – and reported to the Bird Banding Lab ([www.reportband.gov](http://www.reportband.gov)).

## North American Bird Banding Program

The North American Bird Banding Program is jointly administered by the U.S. Department of the Interior and the Canadian Wildlife Service. Their respective banding offices use the same bands, reporting forms, and data formats. Because banding requires capturing and handling birds, the activity is controlled in the United States under the Migratory Bird Treaty Act and requires a federal banding permit.

Licensed banders record where and when each bird is banded, its age and sex, and any other information, and send those data to the Bird Banding Laboratory.



Wildlife Division biologist Julie Victoria (left) instructs volunteers Emily Herz (middle) and Megan Carroll (right), from Lyman Hall High School's Vo-Ag Program, on how to hold the osprey chicks for banding.

ing chicks at a few locations.

One of these locations is property owned by Groton Utilities where the company has erected several nesting platforms. This past July, Wildlife Division biologist Julie Victoria, along with a few volunteers, visited the site to check the nests and band any young. Groton

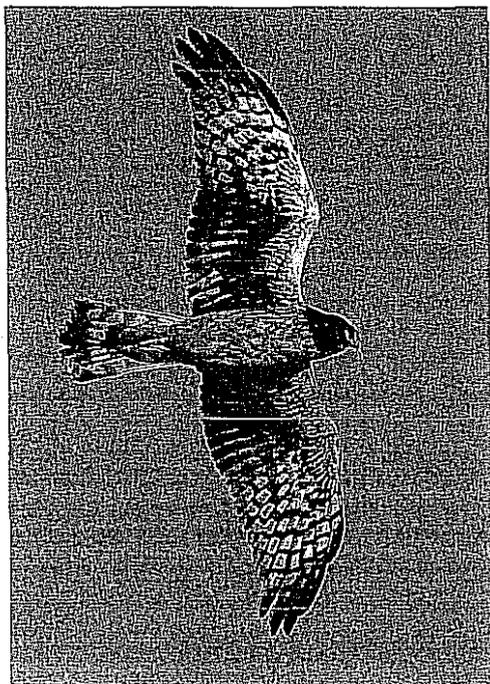
# Experience a Hawk Watch

A popular activity in the fall for those who are interested in birds is to participate in a hawk watch at key sites where migrating raptors and other birds pass over in large concentrations during their journey southward. "Hawk watchers" flock to these sites to either marvel at the sight of such large numbers of raptors or to sharpen their identification skills of birds in flight. Either way, experiencing a hawk watch is one the best ways to observe a variety of hawks, falcons, and eagles all at once.

The number and type of birds observed in one day at a hawk watch site depend upon the temperature, wind direction, and time of year. The best days for counting are when weather conditions, like the passage of a cold front, cause hawks to move in great numbers. In the Northeast, falling temperatures caused by a cold front stimulate birds to migrate and the associated north to northwest winds push birds toward the Atlantic Coast. Many hawks are reluctant to cross open water, instead concentrating along the coast and following its contours, south and west, until they pass over areas like Lighthouse Point Park in New Haven, and Cape May, in New Jersey. Locations like these are perfect for hawk watchers to "set up shop" with their binoculars and spotting scopes. The hawk watchers identify and count the raptor species as they fly over. Migration count data collected at the hawk watches are submitted by the official counters to the Hawk Migration Association of North America (HMANA) through its Web site ([www.hawkcount.org](http://www.hawkcount.org)). The Raptor Population Index uses these data to contribute to the conservation and knowledge of raptors and their migration, and to monitor population trends among the different raptors.

## Where to See Hawks

Hawk Mountain Sanctuary in Pennsylvania is one of the best known places in the northeastern United States to watch the annual hawk migration. An average 20,000 hawks, eagles, and falcons pass the Sanctuary's North Lookout between



An immature northern harrier is seen as it flies past a Connecticut hawk watch location.

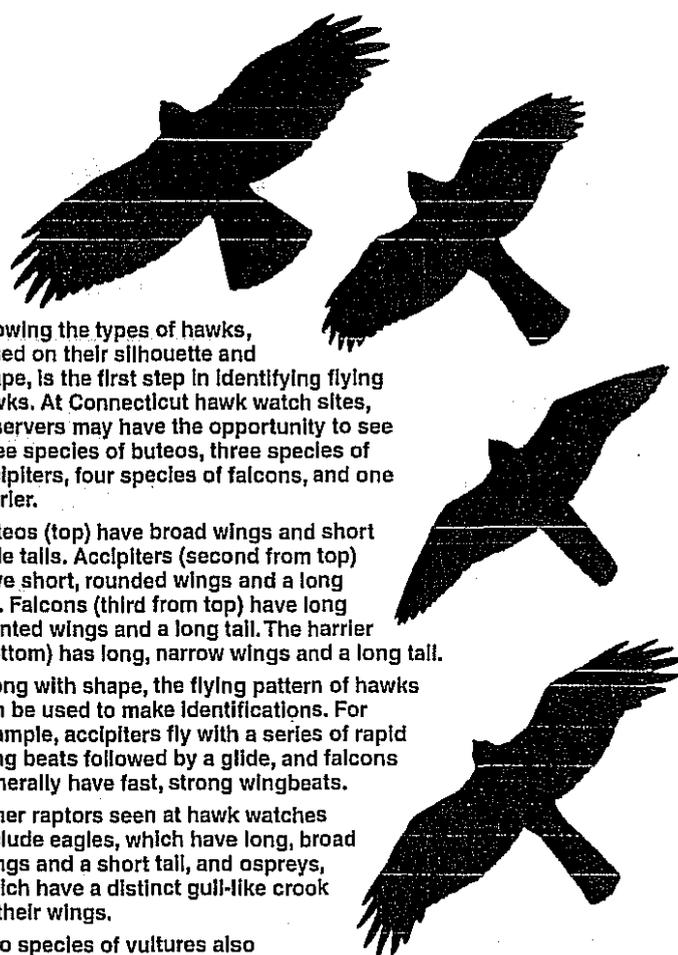
mid-August and mid-December every year, and are identified and counted. Another hot spot for fall hawk watching in the Northeast is Cape May Point, where flights totaling more than 1,000 hawks per day occur several times each fall.

Fortunately, you don't have to go all the way to Pennsylvania or New Jersey to witness a hawk watch. Several hawk watches are held right here in Connecticut. The most notable is at Lighthouse Point Park,

on the New Haven Harbor. It is one of the premier locations in southern New England for observing migrating hawks, eagles, and falcons, as well as a variety of songbirds. The 2010 Hawk Watch at Lighthouse Point Park occurs daily from September 1 until November 30, starting at 7:00 AM and continuing as long as the hawks keep flying. Those interested in observing this yearly phenomenon are welcome to stop by Lighthouse Point Park. Official counters are stationed every day at the park where they can help visitors spot and identify birds.

Another popular Connecticut hawk watch is at Quaker Ridge on the grounds of the Greenwich Audubon Center. The season runs from August 20 to November 20, seven days a week, and an experienced hawk watcher is on hand to answer questions. Quaker Ridge is a great location to observe the mass movement of broad-winged hawks through Connecticut, mostly in September.

Directions to all of the hawk watch sites in Connecticut and throughout North America can be found on the HMANA Web site. All that is needed to participate in a hawk watch is a good pair of binoculars. A spotting scope also is useful and field guides that deal specifically with the identification of hawks in flight are invaluable. A free silhouette "Guide to Hawks Seen in North America" is available from the HMANA Web site. The two-page guide will help you compare the shape and key field marks of 21 species of migratory hawks seen throughout most of North America. The guide is a handy field reference for all hawk watchers, and a great start for beginning hawk watchers.



Knowing the types of hawks, based on their silhouette and shape, is the first step in identifying flying hawks. At Connecticut hawk watch sites, observers may have the opportunity to see three species of buteos, three species of accipiters, four species of falcons, and one harrier.

Buteos (top) have broad wings and short wide tails. Accipiters (second from top) have short, rounded wings and a long tail. Falcons (third from top) have long pointed wings and a long tail. The harrier (bottom) has long, narrow wings and a long tail.

Along with shape, the flying pattern of hawks can be used to make identifications. For example, accipiters fly with a series of rapid wing beats followed by a glide, and falcons generally have fast, strong wingbeats.

Other raptors seen at hawk watches include eagles, which have long, broad wings and a short tail, and ospreys, which have a distinct gull-like crook in their wings.

Two species of vultures also are encountered. Turkey vultures frequently soar with wings held in a dihedral ("V" shape). Black vultures have short, rounded wings and short tail. They soar with wings held straight and flat.

# New Nesting Areas a Bonus for Plover and Terns

Written by Orla Molloy

The unusually warm weather experienced this past spring in Connecticut seemed to prompt an early start to the breeding and nesting season for some bird species. State and federally threatened piping plovers were no exception. Not long after returning from their wintering grounds in late March to the Connecticut shoreline, plovers were eagerly pairing off and laying eggs in the first nests of the season. The plovers again chose sites from Southport to Stonington to nest.

These small, sparrow-sized birds benefitted from the early nesting. Beach activities are sparse this time of year and the weather in unpredictable, leaving beaches free of human disturbance. Another advantage was the ability to renest if a previous attempt was washed out from high spring tides.

The 43 pairs of piping plovers that nested in 2010 is a slight decrease from the 44 pairs that nested in 2009. A total of 103 plover eggs hatched successfully, resulting in 79 fledglings by the end of August. Fledgling numbers increased from last year's 74 fledglings.

## *New Nesting Areas Created*

Although most piping plovers return to the same nesting ground each year, the ever changing coastline created new territory for these birds. There was a massive expansion of a sandbar at Milford Point this year, along with the formation of a new sandbar on nearby Cedar Beach. Due to these favorable changes, four pairs nested on Milford Point and three pairs nested on Cedar Beach. Sixteen fledglings were produced between these two close-knit beaches.

The surroundings at Sandy Point/Morse Point in West Haven also have been altered by the tides. Vegetation has overtaken areas of the beach that had once been prime nesting habitat. Fortunately, a wider and longer sandbar has emerged further down the beach to form a pristine nesting location for both

plovers and least terns. A former channel at Griswold Point in Old Lyme has filled with sand, connecting two areas of beach. The natural expansion of these sites offered additional habitat that was not available in years past.

Unfortunately, many nests were lost to high spring tides. Five out of 11 nests laid at Milford Point and Cedar Beach were flooded. In addition, Hammonasset Beach State Park in Madison and Long Beach in Stratford each lost a nest from high tides. Thankfully, these nests were washed out early enough in the season for the birds to renest.

## *Predators and Disturbance Take their Toll*

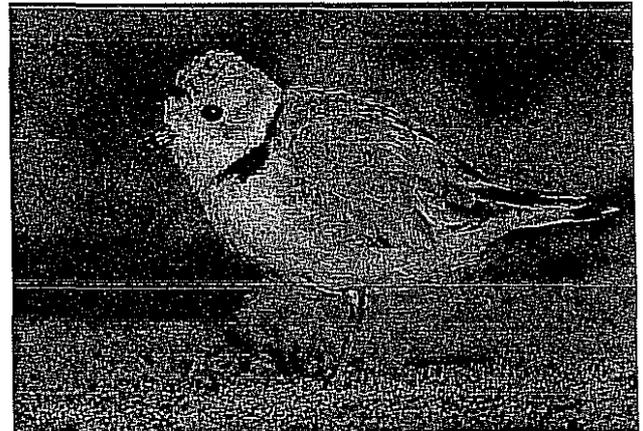
The major difficulties facing piping plovers again this year were people causing disturbance and predators (skunks, raccoons, foxes, herons, dogs, and cats). Many predators are enticed to the shoreline by garbage left by beachgoers. Metal enclosures are erected around plover nests once they are located to help mini-

mize losses from predation. Despite these preventive measures, predators still take their toll on the nesting birds. Two out of the four nests at Long Beach in Stratford showed signs of digging underneath the enclosure and the eggs were taken.

Human disturbance plays a crucial role in the loss of chicks. Development on the shoreline limits the amount of suitable habitat for breeding success. Piping plovers are extremely sensitive to commotion. When adults are on eggs, they can be disrupted by walkers, joggers, and sunbathers. Plovers are easily startled off their nests, leaving the eggs vulnerable to predators and the effects of hot or cold weather. Kite surfers continue to be another source of disturbance as it is



Wildlife Division seasonal resource assistant Orla Molloy patrols a beach nesting area, collecting data on the number of nesting pairs of piping plovers (below) and least terns. The areas are fenced to protect the birds from human disturbance.



believed that plovers view the kites as predatory birds.

Once hatched, plover chicks are unable to maintain a steady temperature for the first few weeks. In response to this situation, the adults will corral the chicks underneath their bodies, brooding them to keep them warm. If adult plovers are prevented from warming their young, mortality rates will increase. Unfortunately, constant interruptions complicate this necessary behavior.

### ***Least Terns Fared Better in 2010***

State threatened least terns nest on the same Connecticut beaches as piping plovers. However, they do not return from their wintering areas until early May and lay eggs until mid-May.

Sandy Point in West Haven has histor-

ically been a productive nesting site for least terns. So, it was a surprise when not a single least tern nested at Sandy Point in 2009. The addition of sand during the past winter may have been the reason why this area rebounded from the dismal results of last year. Forty least tern pairs established nests at a newly-formed sandbar on Sandy Point, fledging four chicks.

Cockenoe Island in Westport turned out initially to be a viable nesting location for terns this year. Twenty-five pairs nested at this site for the first time in years. Unfortunately, most of the nests were flooded by high tides. Only five pairs were able to fledge 10 chicks.

Menunketesuck Island in Westbrook and Sandy Point in Stonington were other islands that least terns chose for nesting. The June high tide flooded most of these

nests, as well as nests at Pleasure Beach in Bridgeport.

Another major nesting site for least terns is Griswold Point, in Old Lyme, where 30 pairs produced 10 fledglings.

Although 2010 was a better year for these small shorebirds compared to recent years, least tern production in Connecticut remains low. Only 36 chicks fledged from the 132 least tern pairs that nested along the Connecticut shoreline.

*Orla Molloy is a seasonal resource assistant for the Wildlife Division*

The Cooperative Endangered Species Conservation Fund (Section 6 of the Endangered Species Act) provides funding for Connecticut's Piping Plover/Least Tern Project.

## **Funding Provided for Phragmites Control Project in Milford and West Haven**

The DEP recently announced funding of \$23,000 from the Bond Commission for a phragmites control project in an area adjacent to the Oyster River in Milford and West Haven. The project will help restore a 37-acre brackish tidal marsh to a more natural state, as well as improve the natural stream flow and ecological balance. Twenty-seven acres of the marsh are dominated by phragmites, an invasive and aggressive plant that grows in brackish, tidal freshwater and non-tidal freshwater wetlands.

Phragmites is a tall, native perennial grass that has taken over thousands of acres of wetlands in Connecticut. Thick stands of phragmites form a barrier to the movement of animals and large birds, such as ducks, shorebirds, and wading birds, and also restrict tidal flow. The shade from large phragmites stands hinders the growth of other native plants, reducing plant diversity. The presence of phragmites appears to be detrimental to the overall ecological functioning of tidal wetlands. For more information on phragmites, visit the DEP Web site at [www.ct.gov/dep/invasive-species](http://www.ct.gov/dep/invasive-species).

Over the past 30 years, Connecticut has worked with federal partners to protect sensitive wildlife habitat and restore acres of wetlands along the Connecticut coast. The Connecticut Tidal Wetland Restoration Team is a multi-agency and multi-stake-



DEP Commissioner Amey Marrella speaks at an event to announce the funding for a phragmites control project in Milford and West Haven. The announcement and presentation of a symbolic check to the City of Milford took place in September at Baybrook Beach, West Haven.

holder group that has partnered for nearly 30 years to advance the restoration of degraded tidal wetlands at 71 sites for an acreage exceeding 1,148 acres. The Wildlife Division's Wetland Habitat and Mosquito Management Program monitors 110 areas and has controlled phragmites on 3,085 acres since the program began in 2000.

T. IVERS, CITY OF MILFORD

# Chytrid Fungus Detected in Connecticut Amphibians

## *More research is needed*

Written by Laura Saucier

Chytridiomycosis is an infectious skin disease that affects amphibians. It is caused by a fungus called *Batrachochytrium dendrobatidis*, or chytrid fungus. The disease was first described in 1999

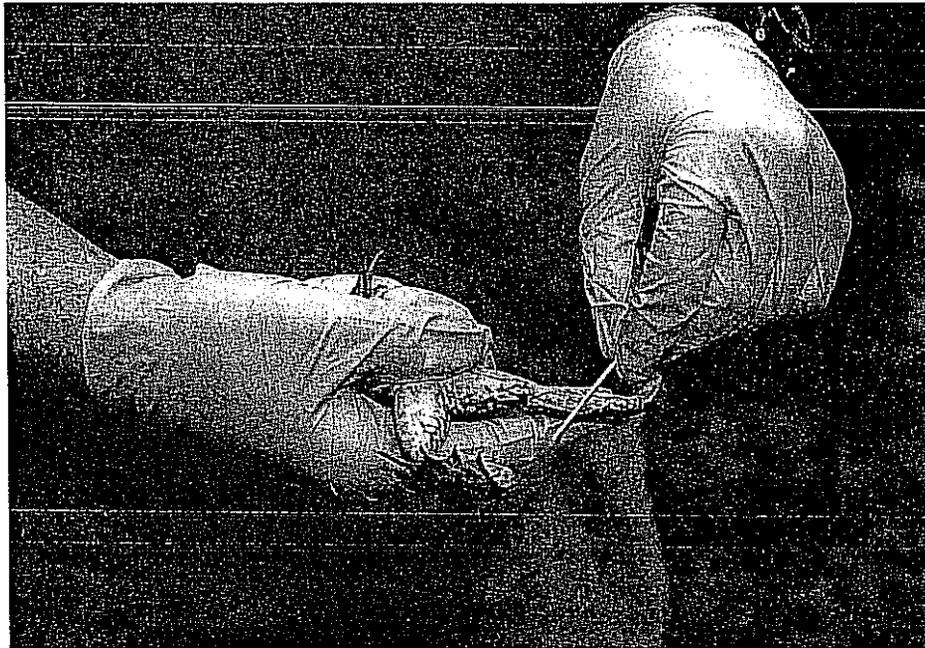
from die-offs in frog populations in Australia. Amphibians are the only known vertebrate host for this fungus species. It has caused population declines and the extinction of some amphibian species from the wild, especially in Central and South America, Europe, Australia, and New Zealand. The origin of the fungus is unknown, although one hypothesis is that the fungus is from Africa and has spread through the international trade of amphibians. The earliest detection of this fungus on an amphibian was on a museum specimen from South Africa from the 1930s.

### *What Is Chytrid Fungus?*

Chytrid fungus is an aquatic fungus that attacks the keratin in the skin of adult amphibians and the mouthparts of tadpoles. The skin is an important organ of respiration and osmoregulation for amphibians. The skin of an amphibian infected with the chytrid fungus becomes thickened, thus interfering with these important life processes. Clinical signs of frogs with chytridiomycosis are the

*Amphibians are the only known vertebrate host for the chytrid fungus, which causes an infectious skin disease.*

presence of excessive sloughed skin, lethargy, and an odd-resting pose of not allowing the belly touch the surface they are on. Interestingly, while this fungus has a broad amphibian host range, not



Seasonal Resource Assistant Matt Blumstein swabs a green frog to test for the presence of chytrid fungus on its skin. PHOTO BY P. J. FUSCO

all species that are susceptible to it have declined. It is thought that perhaps other factors, such as environmental stressors, may play into whether or not an animal becomes infected.

Chytridiomycosis is treatable for animals in captivity, such as zoos and aquariums. In the natural environment, it would be nearly impossible given that the fungus has "flagellated zoospores" that are capable of travelling through water systems and can subsist in watercourse sediments for extended periods of time. Fortunately, the fungus cannot survive desiccation or being subjected to temperatures above 86 degrees F. In addition, it has fairly strict pH thresholds. Perhaps, with these limitations, the fungus is held in check naturally.

### *Documenting Chytrid Fungus in Connecticut*

Chytrid fungus has been documented in most New England states. However, it had not been documented in Connecticut

until May 2010 when samples collected in Litchfield County from Northern leopard frogs tested positive. Biologists in New England are cautiously optimistic that while the fungus is present, it does

not appear to be affecting local amphibian populations in the same way that is being seen in other parts of the world. Scientists currently are delving into the reasons why New England frogs and salamanders don't seem to be dying from infections caused by this fungus.

The Wildlife Division and Connecticut Audubon Society have been catching and swabbing the skin of amphib-

ians statewide and sending the samples to Yale University for testing. The goal is to determine how widespread the chytrid fungus is in our state, as well as which species are carrying it. Connecticut samples also are aiding the work of a Yale University graduate student who is attempting to describe the evolutionary history of this fungus and has been testing samples from all over the country. The Yale student is looking at the genetic variation among the fungal samples she receives and is attempting to prove the origin of the fungus and how it spread to become a worldwide cause of amphibian die-offs.

The State Wildlife Grants program provides federal dollars to support cost-effective conservation aimed at preventing wildlife from becoming endangered.

Laura Saucier is a Technician for the Division's Wildlife Diversity Program



# 2010 Resident Canada Goose Banding Project

Written by Kelly Kubik

Canada geese are one of the most familiar wildlife species in Connecticut. They are a valuable natural resource that provide recreational opportunities for birdwatchers, sportsmen, and the public. Three distinct populations of Canada geese are present in Connecticut during certain times of the year. Two of these populations are migratory, while the third is resident. Compared to their migratory counterparts, resident geese are prolific breeders. They are found throughout the state, with the highest concentrations occurring in the 3 most urbanized counties: Fairfield, Hartford, and New Haven.

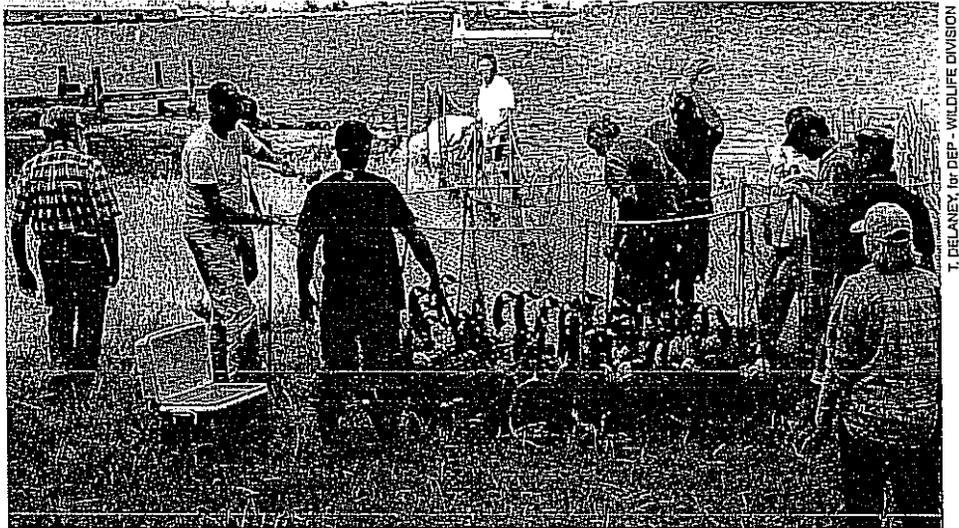
Contrary to conventional wisdom, resident geese are not migratory and do not fly north to breed. The origins of resident geese in Connecticut can be traced back to several introductions starting in the mid-20th century. These introductions were conducted by individuals, game clubs, and the State Board of Fish-

*Three distinct populations of Canada geese are present in Connecticut during certain times of the year. Two of these populations are migratory, while the third is resident.*

ies and Game (precursor to the current DEP Wildlife Division). Resident goose populations have increased substantially in Connecticut over the last 25 years, and this has led to an increasing number of problems. Wildlife managers have a tremendous challenge in appeasing a variety of individuals and groups with contrasting viewpoints about geese. The ultimate goal of managers is to reduce resident goose numbers while maintaining the migrant goose population.

## **Reducing Resident Goose Populations**

One of the tools that biologists use



T. DELANEY, for DEP - WILDLIFE DIVISION

The best time to capture and band Canada geese is during their annual molt when they are temporarily flightless. With the assistance of a large group of volunteers, the geese are driven across land and/or water and corralled into a portable net. The geese are then aged, sexed, and fitted with leg bands

to reduce resident goose populations is regulated hunting. Connecticut currently has two hunting seasons that are specifically designed to harvest resident geese. These seasons were established by examining band recovery and neck collar observation data. Waterfowl banding data also are used by researchers for assessing distribution of harvest, productivity, population size, and survival rates. Furthermore, it also helps in identifying important breeding, staging, and wintering areas, as well as migration routes and corridors.

## **Trapping and Banding Geese**

Canada geese, along with other waterfowl species, are unique because they simultaneously shed their primary feathers during an annual molt and become temporarily flightless. This provides an opportunity for biologists to capture geese for marking and data collection. To capture the geese, they are driven across land and/or water and corralled into a portable net. The geese 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.

Wildlife Division staff, with the help

of several dedicated volunteers and Master Wildlife Conservationists, captured 1,384 non-marked and 530 previously marked geese during late June and early July of this year. The majority of this year's recaptures were originally banded in Connecticut; however, some of the recaptured geese were from out-of-state. Geese were captured at 43 different sites and capture size at each location ranged from 1 to 169 geese. Geese were captured at a minimum of 3 sites per county. All banding data was submitted electronically to the U.S. Geological Survey (USGS) Bird Banding Laboratory (BBL) in Laurel, Maryland.

## **Report Banded Geese**

Anyone who encounters a banded bird is urged to report it to the USGS BBL at 1-800-327-BAND (2263) or on the Internet at [www.reportband.gov](http://www.reportband.gov). Those interested in volunteering for next year's goose banding project should contact Wildlife Division technician Kelly Kubik at [kelly.kubik@ct.gov](mailto:kelly.kubik@ct.gov) or 860-642-7239.

*Kelly Kubik is a Technician for the Division's Migratory Gamebird Program*



*Anyone who encounters a banded bird is urged to report it to the USGS Bird Banding Lab at 1-800-327-BAND (2263) or [www.reportband.gov](http://www.reportband.gov).*

# Bird of Solitude - The Hermit Thrush

Article and photography by Paul Fusco

At the end of an early summer day, with the air becoming still and the sun glowing orange and beginning its descent to the horizon, a transition begins. Diurnal animals head to their nighttime roosts and dens while nocturnal creatures awaken to start their hunt for food as the day is turning to night. At this time, a clear and gentle song breaks the stillness of a cool, dark forest in the northwestern hills of Connecticut. The flute-like sound is ethereal and musical with wonderful tonality as it rings through the forest.

The exquisite song of the hermit thrush is one of Connecticut's little known treasures. Woodsmen, hikers, birders, and naturalists all may have the chance to hear the song. But most residents do not, as the hermit thrush only sings from its breeding habitat of remote forest interior. The song starts with a clear fluted note, then proceeds with a series of descending phrases usually pitched higher than the initial note. After a pause, the pattern repeats at a different pitch, falling off toward the end. The bird may be seen in backyards around the state during its spring and fall migration, but during the breeding season its presence is normally restricted to forestland that is seldom visited by people.

Thrushes are small to medium-sized songbirds that are often found on the ground. They can be seen running along the ground, using their large eyes and strong legs to locate and catch food. Everyone is familiar with the feeding style of the backyard favorite, the American robin, which is the most widespread and familiar thrush species in our area. The "run, stop, peck" feeding method is similar with most of the thrushes.

The hermit thrush is one of six species of forest thrush that occurs in Connecticut. All are brown-backed with spotted breasts. Forest thrushes are slightly smaller than a robin.

Identifying the hermit thrush can be difficult at times because all of the forest thrushes are similar in appearance. Look for the reddish-brown tail of the hermit, which is frequently raised and slowly lowered in a pumping fashion. The reddish tail contrasts with the brown back. The hermit thrush also has a narrow, but distinct, complete white eye-ring.

## Range

Common and widespread, the hermit thrush is found at higher elevations in the northeastern and western United States, across southern Canada from coast to coast and up into the boreal forest regions of Alaska during the breeding season. The winter range lies entirely within North America, from Costa Rica throughout Mexico, and the southeastern United States, into southern New England and up the coastal regions of the

## Six Species of Forest Thrush

Six species of forest thrushes can be found in Connecticut, either breeding or during migration. All have a mostly white underside with variable spotting and a brownish or rusty topside. Their sizes are similar – slightly smaller than a robin – and they are typically found in the understory of forested habitats.

Hermit thrush	<i>Catharus guttatus</i>	CT breeder
Veery	<i>Catharus fuscescens</i>	CT breeder
Wood thrush	<i>Hylocichla mustelina</i>	CT breeder
Swainson's thrush	<i>Catharus ustulatus</i>	CT migrant
Gray-cheeked thrush	<i>Catharus minimus</i>	CT migrant
Bicknell's thrush	<i>Catharus bicknelli</i>	CT migrant



The hermit thrush can be identified by a heavily spotted breast, reddish-brown tail, and narrow, complete white eye-ring.

Pacific states to southern British Columbia.

In Connecticut, the hermit thrush breeds in the higher elevations in the northwestern and northeastern parts of the state. Its stronghold is the forested areas in the hills of Litchfield County. The hermit thrush is the only forest thrush species that may be encountered in Connecticut during winter, typically in locations close to the shoreline and with berry-producing thickets.

## Habitat

Hermit thrushes use a variety of forest interior habitats. While they prefer heavily wooded hemlock and white pine forests, they can often be found in open woodlands and edge margins within the forest. They tend to use drier and brushier areas than the other breeding forest thrushes (wood thrush and veery), which both prefer forest habitat that is wetter and lower in elevation.

Elevation can be a determining factor in the occurrence of breeding forest thrushes in New England. Wood thrushes and veery are most common in lower altitudes, hermit thrushes at mid-elevation, and Swainson's thrushes are found at higher elevations. Bicknell's thrushes breed only on the highest mountain tops in New England and nearby areas.

## Migration

During migration, hermits are the first of the forest thrushes to arrive in spring and the last to leave in fall. Even though they are the hardiest of the forest thrushes, early migrants in spring are vulnerable to sudden cold weather and heavy late snowstorms. In such harsh conditions, many hermit thrushes may succumb to the elements.

Like many other songbirds, hermit thrushes migrate at night. They take advantage of prevailing winds in both spring and fall. By traveling at night, songbirds take advantage of the cooler, damp air, which helps prevent the birds from overheating as they work hard, beating their wings constantly for hours at a time. Another advantage to night migration is the reduced threat from predators, such as hawks, which migrate along the same routes by day. Many night migrants use the sun, stars, earth's magnetic field, and landmarks for navigation.



As its name implies, the hermit thrush is a shy and seclusive species. A bird of the forest interior, it can be found in mixed conifer forests at higher elevations during the breeding season in Connecticut, and in small numbers close to the shoreline in winter.

### *Behavior*

The nest of the hermit thrush is somewhat bulky with a compact center. It is built with bark, strips of wood, twigs, ferns, grass, and moss. The center cup is composed of pine needles, rootlets, and plant fibers. The nest is normally built on the ground, frequently in a natural depression, and often under a small pine or hemlock with low branches that provide cover. There are unusual records of hermits nesting close to or on buildings.

The diet of the hermit thrush consists almost entirely of insects, spiders, and other invertebrates during the breeding season. They have been known to take salamanders on occasion. Fruits, especially berries, are important winter foods for hermits that spend the winter in colder areas of their range.

Large blocks of forests are important for birds, like the hermit thrush, that depend on secluded areas to breed and raise their young. Development and road building fragment forests into smaller and smaller blocks, threatening the thrush, as well as many other forest interior species. Currently, hermit thrushes are considered to be fairly common, but with protection and stewardship of large blocks of forest habitat, the



Hermits are the only forest thrush that can be found in Connecticut during winter. They are usually seen in moderate climate areas, such as near the shoreline.

thrush can be protected well into the future.

*Paul Fusco is the Art Director and Wildlife Photographer for the Division's Outreach Program*

# 2010 Spring Turkey Harvest Results

## Outlook Good for Fall Turkey Season

Written by Michael Gregonis

The spring wild turkey season continues to be the most popular of the three Connecticut turkey hunting seasons. Many sportsmen look forward to the opportunity and challenge of harvesting a wild turkey during spring.

Connecticut's 2010 spring turkey season was open statewide and ran from April 28 to May 29. A total of 7,389 permits were issued and 1,245 birds were harvested. At least one turkey was harvested by 867 hunters for a 12% statewide success rate. The harvest consisted of 989 adult males, 253 juvenile males, and three bearded hens. Harvest decreased by 17% from 2009; however, permit issuance increased slightly (0.2%). Multiple turkeys were harvested by 285 hunters — 202 hunters harvested two birds; 76 hunters harvested three birds; four hunters took four birds; and three hunters reported five birds.

At least one turkey was harvested from 147 of Connecticut's 169 towns (87%). Pomfret reported the highest harvest at 35 birds, followed by Woodstock (32) and Lebanon (30). State land hunters reported the highest harvest from Naugatuck State Forest (21), Cockaponset State Forest (14), and Housatonic

State Forest (12). Regionally, the highest harvests were reported in turkey management zones 5 (206), 1 (136), and 2 (132).

In general, the highest harvest occurs on opening day and Saturdays. The 2010 spring season was no exception as 18% (223 birds) of the total harvest occurred on the first day of the season and 26% (319 birds) occurred on the five Saturdays. It is assumed that the majority of hunters had time off on these days, enabling them to enjoy recreational activities.

### Junior Hunter Training Days

In an effort to provide a quality wild turkey hunting experience for Connecticut's junior hunters (ages 12 through 15), junior turkey hunter training days were scheduled on two Saturdays, April 17 and April 24. The daily shooting hours were extended from a 12:00 PM closure to a 5:00 PM closure to provide more opportunity for youths to partake in these special training days. Youths harvested 63 turkeys over the two days. The junior turkey hunter training days have been well received, with participants and mentors having many positive comments on past spring turkey hunter surveys. These

### Fundamental Rules for Safe Gun Handling

- Always treat every firearm as loaded.
- Always keep the muzzle pointed in a safe direction.
- Always keep the firearm unloaded until ready to hunt.
- Always keep your finger off the trigger until ready to shoot.
- Always be sure of what lies between you and the target and what lies beyond.

days are proving to be a great way to introduce youth hunters to spring wild turkey hunting.

### Looking Ahead to the Fall Turkey Season

Despite allowing hunters to purchase both a state and private land permit, increasing the season length by a week at the beginning of the season, and providing additional opportunities for youth hunters, the overall fall harvest continues to decline. Because permit issuance has been similar during the past several years, the lower harvest may be attributed to declines in statewide turkey populations. Spring and early summer weather

play a paramount role in the increase and decrease of statewide populations. Survival rates for poults and hens are higher in years with dry conditions, whereas rates decline with wet conditions. Past brood surveys, hunter success rates, and harvest results have indicated reduced survival of hens and poults during the past several years in Connecticut. However, preliminary results of the 2010 brood survey indicate good turkey productivity for this past spring. As a result, turkey hunters should encounter more birds this fall.

*Michael Gregonis is a Biologist for the Division's Deer and Turkey Programs*

P. J. FUSCO



# Purple Martin

*Progne subis*

## Background

The purple martin is one of North America's most beloved songbirds. It is known for its skillful aerial exhibitions, tolerance of humans, and pleasant twittering call. Humans have long sought to attract purple martins. Native Americans hung hollow gourds in saplings or on poles to encourage nesting in their villages. When European settlers arrived in the New World, they also adopted the custom of hanging gourds for martins. Today, the entire eastern race of purple martins (east of the Rocky Mountains) is totally dependent on humans for supplying them with nesting sites in the form of specially-designed houses or hollow gourds. If humans were to stop supplying martins with homes, they would likely disappear as a breeding bird in eastern North America. West of the Rocky Mountains, purple martins largely nest in the ancestral ways, in abandoned woodpecker nest cavities or other natural cavities in dead trees or cliffs.

Purple martins have declined in numbers over much of their range, including New England and Connecticut. Competition from more aggressive, non-native European starlings and house sparrows for the nesting compartments people offer has contributed to this decline. Pesticide use and prolonged weather extremes (unseasonably cold, rainy periods, heat waves or droughts) also are responsible for reducing martin numbers.

## Distribution in New England

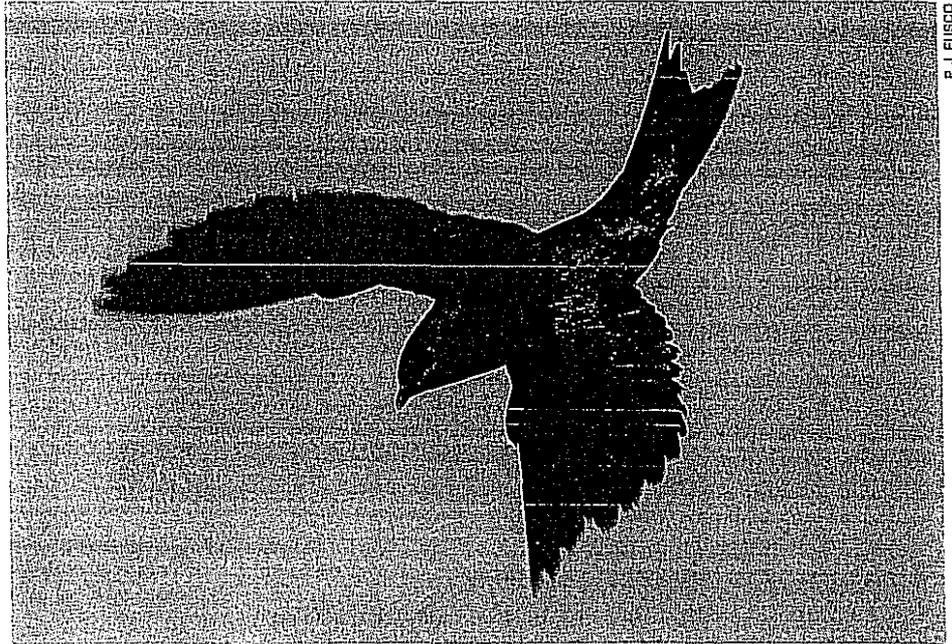
This swift-flying bird is a seasonal Connecticut resident that arrives in New England during April to begin its breeding and nesting season. As long as conditions remain favorable, martins will return year after year to the exact same nesting location. Their range only expands if suitable habitat is no longer available at a previously used site or if new sites or artificial roosts nearby attract younger returning martins. Vast congregations of purple martins begin their long southern migration in September to wintering grounds in South America, particularly Brazil.

## Description

Purple martins are often called "dark swallows" in reference to their dark, glossy, purplish-blue plumage. Females and young martins are grayer and paler on their undersides than males. Purple martins are the largest member of the swallow family, ranging from 7.5 to 8.5 inches in length.

Females are often confused with their smaller relative, the tree swallow. The larger size of the martin and the grayness of its throat and breast distinguish it from the tree swallow, whose undersides are a vivid white. Male martins can be distinguished in flight from equally iridescent and similarly-sized starlings by their forked tail, longer wings, and typical swallow flight of short glides alternating with rapid flapping.

The complex song of a martin is a mixture of chortles and gurgles that begin with descending notes and end with a prolonged twitter. The call in flight is a jubilant twittering.



P. J. FUSCO

## Habitat and Diet

Purple martins inhabit both urban and rural areas. They prefer open, grassy areas and forest openings near streams, rivers, marshes, ponds, or lakes. These openings provide a large "swoop zone" for catching insects. The most attractive backyard habitats include expanses of lawn or meadow near a large body of water.

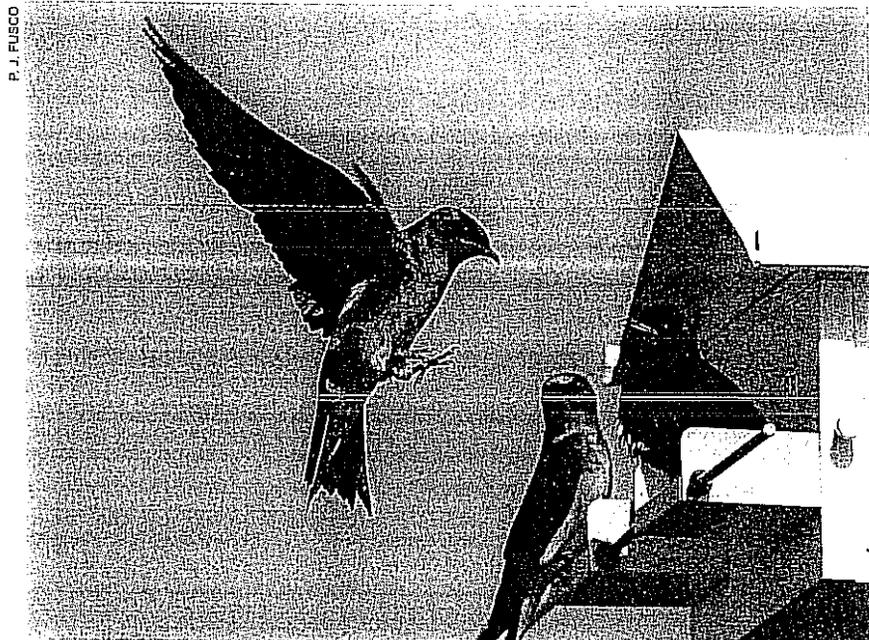
Like all swallows, purple martins feed almost entirely on insects. Vast amounts of insects, caught in flight, are consumed daily. A popular misconception is that martins are a major predator of mosquitoes: Extensive studies of feeding habits have shown that mosquitoes make up less than 3% of the martin's daily diet. Ironically, martins consume large quantities of adult dragonflies and damselflies whose aquatic nymphs are major predators of developing mosquito larvae.

## Life History

A purple martin colony is not an assemblage of birds that travels or functions as a flock. Rather, it is a random grouping of birds attracted to a favorable breeding site. Colony members arrive and depart independently of each other.

Purple martins seek natural cavities or man-made apartment houses for nesting that are 15 feet or more above ground. Martins will return to the same nest site year after year as long as the habitat conditions meet their needs. Purple martins exhibit a stronger communal lifestyle than most other birds and will nest in colonies of varying sizes. This weak sense of territoriality extends primarily to other martins and not to competitors like starlings and house sparrows.

Male and female martins work together to construct a crude nest of leaves and twigs set on a thin layer of mud. Mud is often banked up along the front edge to prevent the eggs from rolling out of the nest cavity. The female incubates the 4 to 6 smooth, non-glossy white eggs for 24 to 32 days. After hatching, the young remain in the nest for 24 to 28 days and are fed insects by both adults. Young martins may continue to roost in the nest at night



P. J. RUSCO

after they are able to fly.

### Establishing and Maintaining a Colony

The best way to help increase the purple martin population is to establish and manage artificial nesting cavities. Successfully attracting and hosting a purple martin colony depends on selecting quality housing, having the appropriate habitat, and practicing active colony management.

The first step you should take is to learn as much as possible about the birds and their needs. A good place to start is the Purple Martin Conservation Association (PMCA), an international

### Monitoring Martin Colonies

Landlords with active purple martin colonies in Connecticut are urged to contact the DEP Wildlife Division at 860-675-8130 or [dep.wildlife@ct.gov](mailto:dep.wildlife@ct.gov). The Division is attempting to document all of the colonies in the state.

Landlords also should contact the Purple Martin Conservation Association at [martininfo@purplemartin.org](mailto:martininfo@purplemartin.org) or PMCA, 301 Peninsula Dr., Suite 6, Erie, PA 16505 (814-833-7656). PMCA is sponsoring several important projects in which martin landlords can participate. The first project is the Colony Registration Program. The Association is attempting to locate the addresses of every active and inactive martin colony site in North America through this program. Landlords should fill out a free Colony Registration form to register their sites.

The second project, Project Martinwatch, is a continent-wide cooperative venture where the Association supplies nest record forms to active purple martin landlords to fill out as they conduct weekly nest checks on the martins breeding in their boxes or gourds. At season's end, the forms are totaled up and returned to PMCA for analysis.

The third project is the Scout-arrival Survey. The northward migration of purple martins is tracked every season, continent-wide. Those who would like to participate in this survey by providing the date that martins were first seen in their community should visit PMCA's Web site ([www.purplemartin.org](http://www.purplemartin.org)) to submit their information.

These projects will allow the Purple Martin Conservation Association to obtain better continent-wide estimates of breeding success and population trends across North America.

nonprofit organization dedicated to aiding purple martins through landlord education and scientific research. The PMCA Web site ([www.purplemartin.org](http://www.purplemartin.org)) offers a wealth of information, including details and recommendations for martin housing.

**Choose the right location.** Martins have specific space and habitat requirements. Their housing should be located in the center of the largest open area available, about 30-120 feet from human dwellings, and near water. There should be no trees within 40 feet, preferably 60 feet. Housing height should be about 10-15 feet.

**Put up manageable housing.** High quality aluminum martin houses that do not have continuous porches are recommended (these are available from PMCA). Housing should have easy access to compartments and a pole that telescopes, or is equipped with a winch or lanyard. Paint houses and gourds white; white housing attracts martins best and reflects sunlight, keeping nestlings cooler. Compartment floor dimensions should be at least 6 inches by 6 inches, but larger compartments (7" x 12") are preferred and offer better protection from predators and rain. An entrance hole of 2 1/8 inches is preferred. Make sure there is adequate ventilation and drainage in each compartment.

**Protect housing from predators.** Provide external guards to protect against owls, hawks, and crows, as well as climbing animal barriers or guards to protect against rat snakes, squirrels, and raccoons.

**Conduct weekly nest checks and keep written records.** Conducting nest checks is one of the most valuable practices landlords can adopt. Weekly nest checks will not cause martins to abandon their young. Rather, they'll help you discover any problems that occur in time to correct them, such as insect parasites. If parasites or wet nests threaten the survival of nestlings, replace the nest material with clean, dry wood shavings. You also should number the compartments and keep written records.

**Practice active management.** Do not allow competing cavity-nesters to claim the house first; returning martins will bypass already occupied houses even if some compartments remain empty. Starlings and house sparrows will take over compartments, destroy eggs, kill or injure nestlings and adults, and prevent martins from nesting at unestablished sites. Use starling resistant entrances on the house compartments and house sparrow traps to reduce threats from non-native birds. If native birds (tree swallows, wrens, bluebirds, or flycatchers) try to nest in your martin housing, close it and put up single-unit boxes for these desirable species elsewhere on your property. Reopen the martin housing only after the new box has been accepted.

**Keep martin housing in good repair.** Prior to the nesting season, make sure that gourds and/or houses are cleaned, repaired, and painted and that drainage holes are free of debris. Martin houses that are stored inside over winter will last longer.

**Don't give up.** If your martin house is not used the first year it is installed, do not be discouraged! Purple martins have a limited range in Connecticut and expand into new areas slowly. It may take several years before a martin house is occupied.

*The Wildlife Division would like to thank the Purple Martin Conservation Association for granting permission for the use of information from its Web site ([www.purplemartin.org](http://www.purplemartin.org)) to produce this fact sheet.*

# Need for More Purple Martin Research

## *Figuring out where purple martins are and where they go*

Written by Geoffrey Krukar

Purple martin population numbers have declined significantly from historic levels in Connecticut and throughout New England. The reasons for this decline are not well understood. Attempts at expanding the population have been hampered by a lack of knowledge concerning current distribution and population size, dispersal patterns of young birds, and selection criteria of new nesting locations. As a result, the New England Purple Martin Working Group, of which Connecticut is a member, has identified these data needs as top priorities.

Determining where active purple martin colonies currently exist in Connecticut is made easier due to the birds' nesting habits. Generally, purple martins only nest in artificial structures, such as special-made houses or gourds. Consequently, population surveys should be focused in areas with nesting structures. The use of randomly placed survey points, as with other songbird surveys, likely would not yield useful information. Therefore, efforts this past summer were focused on visiting historic colonies identified by the DEP Natural Diversity Data Base.

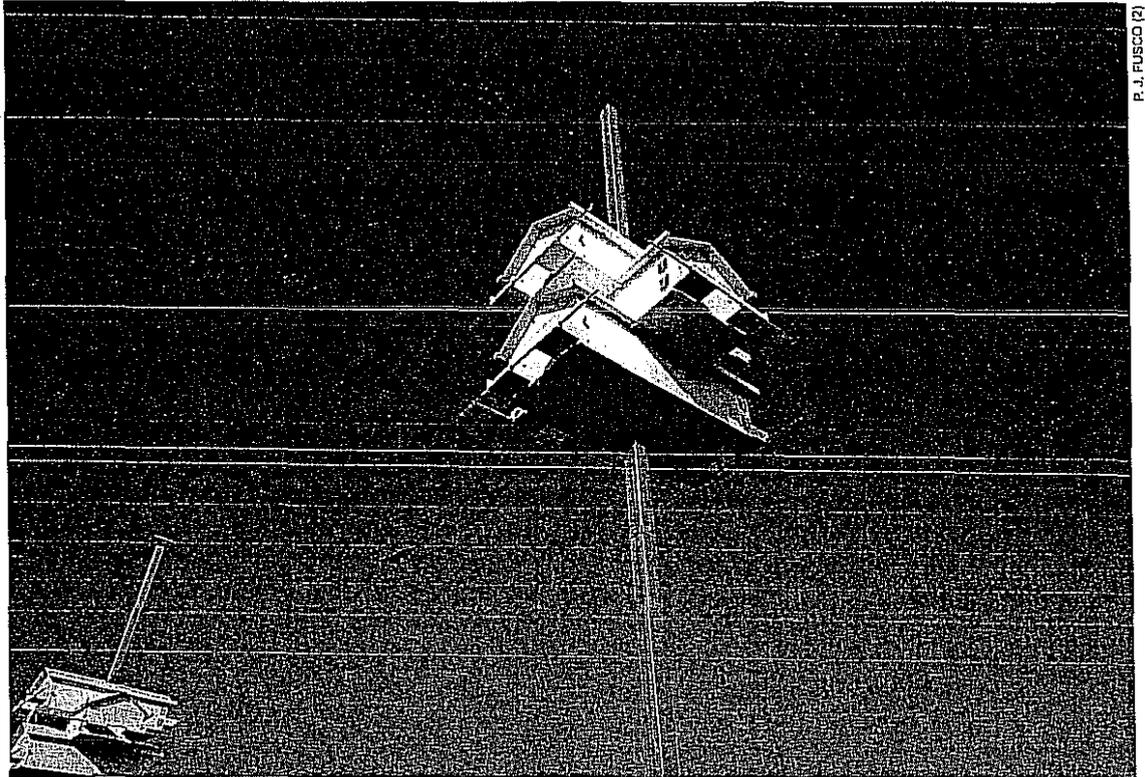
Data collected during visits to each site included the presence or absence of nesting structures and/or active colonies, and general information about the house location and surrounding habitat. A few active colonies were identified either through observations made by the public or reports by colony managers (also known as landlords). To date, less than 15 active purple martin colonies have been confirmed by the Division.

Equally important to knowing where these birds occur is to understand what factors guide the dispersal patterns of second-year birds. It is believed that during their second year of life, martins

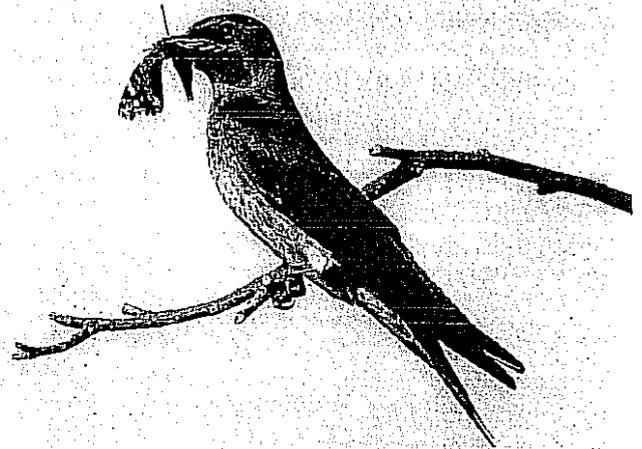
will leave the birth colony to search for new locations to colonize. The Division has applied for a grant through the Endangered Species/Wildlife Income Tax Check-off Fund to study dispersal patterns of juvenile martins. If awarded, this grant will allow for the purchase of colored leg bands and colony starter kits (nest boxes and gourds). The leg bands will be affixed to juvenile martins at several of the largest colonies statewide in summer 2011. The bands will have identifying markers to denote the colony of origin and be uniquely colored to Connecticut. The intention is to use a network of volunteer observers to document movement patterns. At the same time, the colony starter kits will be erected at loca-

tions near known colonies. They will be placed in differing habitats and at various distances. Knowing how far martins will travel, and what habitat and landscape characteristics are being selected, will greatly assist with recovery efforts.

*Geoffrey Krukar is a Technician with the Wildlife Division's Bird Program*



Generally, purple martins only nest in artificial structures, such as special-made houses or gourds.



To date, less than 15 active purple martin colonies have been confirmed by the Wildlife Division.

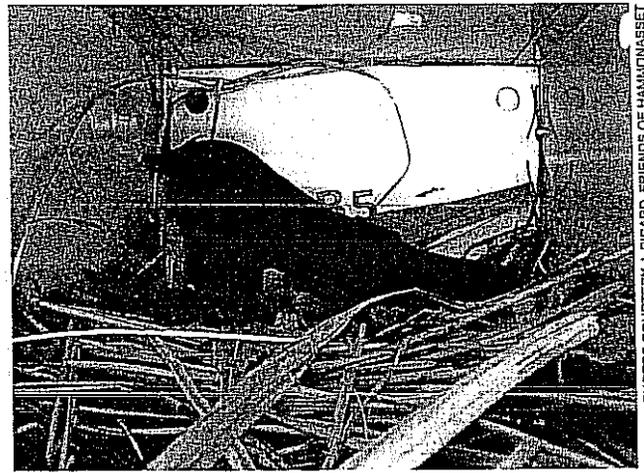
# Hammonasset Beach State Park Is a Favored Destination for Purple Martins

Hammonasset Beach State Park in Madison is a popular destination for beach visitors, hikers, campers, and bird-watchers. Birdwatchers, especially, have the opportunity to observe a variety of birds throughout the seasons. One of the most popular birds that can be watched regularly by both bird enthusiasts and routine visitors are the purple martins that nest in four specialized houses that have been erected at the park, thanks to funding from the Menunkatuck Audubon Society and the Friends of Hammonasset. Two of the houses are located near the Meigs Point Nature Center and two are adjacent to Chase Pond, also known as Swan Pond. The houses have 12 nesting compartments each and are equipped with a pulley system so they can be raised and lowered for monitoring and cleaning.

The houses are buzzing with activity every nesting season. Numerous adult martins can be seen perching on the houses or flying about as they hunt for insects. These martin houses would not be as busy as they are if it weren't for the tireless efforts of martin landlord John Picard and his monitoring partners, Shannon Sheisser and John Pfitzner. John's involvement with the Menunkatuck Audubon Society and his interest in purple martins put him in the perfect position to take over responsibility for the martin houses in 2005 from Charlie Rafford, who had been monitoring the houses and collecting data since 1991.

Every year since then, John, Shannon, and John Pfitzner begin checking the houses in mid- to late April when the martins start to return from their wintering areas in Brazil. At this time, their efforts are focused on preventing starlings and house sparrows from taking over the houses. These invasive birds, if not kept in check, can decimate a martin colony. Once the martins start building their nests, the houses are checked every few days. Daily nest checks begin when the eggs are laid.

According to John Picard, there are several methods and levels of monitoring a martin colony. A more casual approach of doing nest checks once or twice a week results in some level of success without extending much time and effort. More frequent or daily nest checks, however, will result in greater success. Daily checks condition the birds to the landlord's presence and, when done properly, do not disturb the birds. Monitoring consists of removing house sparrows (and starlings if the compartments do not have starling resistant openings), cleaning the boxes, removing nest parasites, changing nesting material as needed, removing



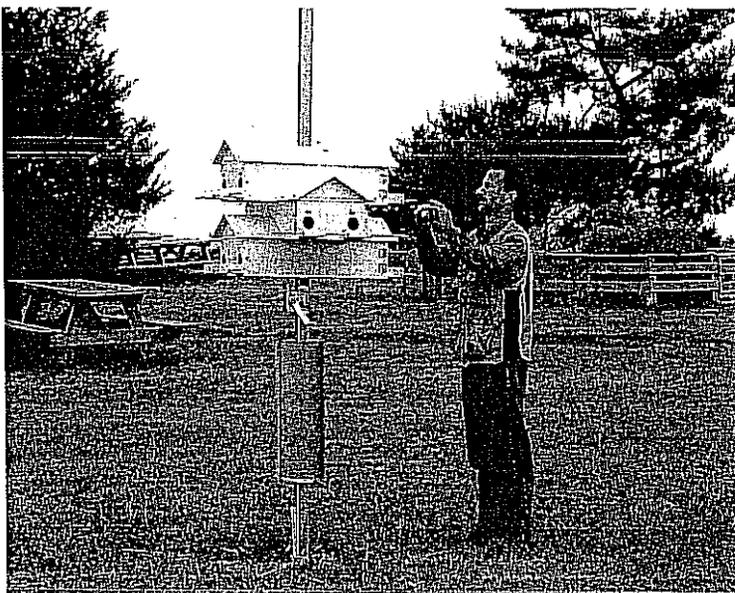
A purple martin sits on her nest in a numbered compartment of a house monitored at Hammonasset State Park.

dead birds and unhatched eggs, recording dates of events (nest building, egg laying, egg hatching, age and number of fledged birds), and returning fallen fledglings to the proper cavity. Despite all of their hands-on efforts to help the martins successfully raise their young, John and his monitoring partners have to contend with two variables that are difficult to control: the weather and the threat of invasive birds. Weather has an incredible influence on the success of the martins. Too many cold and rainy days during the nesting season will prevent the martins from finding enough flying insects to sustain their young and feed themselves. The opposite effect also is detrimental; too many extremely hot and dry days will suppress the flying insect population and activity, which again will result in a lack of food for the martins.

To help with the control of invasive starlings, the Menunkatuck Audubon Society purchased special doors for the nest compartments that allow the martins to enter, but not starlings. Unfortunately, deterring house sparrows is more difficult as there is no effective way of keeping them out of the boxes except for physically removing them.

Accurate records are kept of the martins at the colonies, from egg laying to fledging. John submits data collected from the colonies every year to the Purple Martin Conservation Association, the DEP Wildlife Division, and Connecticut Audubon Society. Between 2005 and 2010, 315 young martins have fledged from the houses at Hammonasset; 115 fledged this past nesting season.

As if John, Shannon, and John Pfitzner aren't busy enough monitoring the four martin houses, they also monitor 30 tree swallow boxes, four osprey platforms, and two kestrel boxes at Hammonasset State Park. And, John continues to monitor the 30 bluebird nest boxes on a bluebird trail in Clinton.



Purple martin landlord John Picard has lowered a martin house at Meigs Point in Hammonasset State Park to take photographs for documentation.

PHOTOS COURTESY J. PICARD, FRIENDS OF HAMMONASSET

# 2010 Update to Connecticut's Endangered, Threatened, and Special Concern Species List

The Department of Environmental Protection is required to review, at least every 5 years, the designation of species as endangered, threatened, or of special concern to determine whether species should be added or removed from the list; or, if necessary, a species should be changed from one category to another. The following is a summary of some of the changes to the State Endangered Species list (DEP Regulations Sections 26-306-4, 26-306-5, and 26-306-6) that became effective on July 1, 2010. Changes to the list of invertebrates and plants are published on the DEP Web site ([www.ct.gov/dep/endangeredspecies](http://www.ct.gov/dep/endangeredspecies)).

## Mammals

No changes were made.

## Birds

- Seaside sparrow (*Ammodramus maritimus*) upgraded to threatened
- Peregrine falcon (*Falco peregrinus*) downgraded to threatened
- American oystercatcher (*Haematopus palliatus*) upgraded to threatened
- Bald eagle (*Haliaeetus leucocephalus*) downgraded to threatened
- Broad-winged hawk (*Buteo platypterus*) added as special concern
- Common raven (*Corvus corax*) was delisted



P. J. FUSCO

The status of the blue-spotted salamander (diploid populations only) changed from threatened to endangered due to the latest review of CT's Endangered Species List.

### Taxonomic changes:

- Least tern changed to *Sternula antillarum* from *Sterna antillarum*

## Reptiles

- Smooth green snake (*Liochlorophis vernalis*) added as special concern

### Taxonomic Changes:

- Wood turtle changed to *Glyptemys insculpta* from *Clemmys insculpta*
- Bog turtle changed to *Glyptemys mühlenbergii* from *Clemmys mühlenbergii*

## Amphibians

- Blue-spotted salamander (*Ambystoma laterale*, diploid populations only) upgraded to endangered.

## Fish

- Rainbow smelt (*Osmerus mordax*, anadromous populations only) was upgraded to endangered
- Blueback herring (*Alosa aestivalis*) added as special concern
- Bridle shiner (*Notropis bifrenatus*) added as special concern

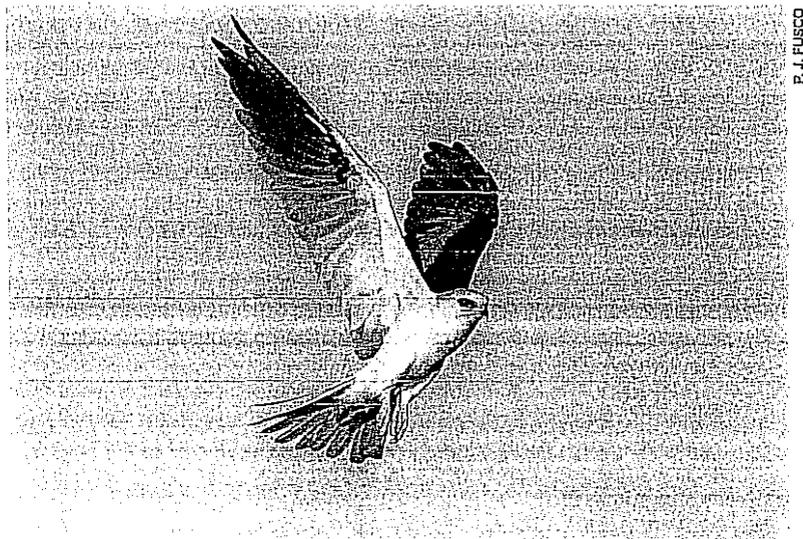
## Rare Visitor Comes to Connecticut

Connecticut played host to a rare visitor from the south this past summer when a white-tailed kite showed up at Stratford Point. The bird is a small, slender hawk with long, pointed wings and a long tail. It is mostly white, with a white tail, light gray topside, and black shoulders

Normally found in southern Florida, south Texas, California, and Mexico, the kite thrilled many onlookers for well over a month as it hunted the coastal grassland habitat of the former Remington Gun Club property (currently being managed by the Dupont Corporation and the Connecticut Audubon Society) and nearby Stratford Short Beach. It regularly was seen hovering over the fields as it caught voles and rats seemingly at will.

To put the visit in perspective, the last time a white-tailed kite was documented in New England was in 1910, and that was a one day sighting on Martha's Vineyard.

Paul Fusco, Outreach Program



P. J. FUSCO



## Report Grouse Observations

In an effort to obtain distribution and harvest information, the Wildlife Division is asking the public to report ruffed grouse sightings and to donate wings and tails from hunter harvested or roadkilled grouse. Grouse sightings may consist of actual bird observations or drumming activity. This information will assist biologists with determining present day locations of ruffed grouse populations in Connecticut. The wings and tails from hunter harvested or roadkilled birds help biologists determine the age and sex of the birds. This information assists in assessing productivity and harvest composition. To report grouse sightings or donate grouse parts, please contact Division biologist Michael Gregonis at [michael.gregonis@ct.gov](mailto:michael.gregonis@ct.gov) or 860-642-7239.

Michael Gregonis, Deer/Turkey Program

## Peter Aarrestad Is New Inland Fisheries Division Director

Peter Aarrestad has been selected as the new Director to lead the Inland Fisheries Division in the DEP Bureau of Natural Resources. Peter received his B.S. degree in Biology from Eastern Connecticut State University and an M.S. degree in Fisheries and Natural Resource Management from the University of Connecticut. He has provided leadership in numerous governmental and professional organizations, in particular as President of the Instream Flow Council, a national organization working to advance the scientific and ecologically sound management of riverine systems. Peter has been with DEP for over 24 years in positions of increasing responsibility, working with both marine and inland fisheries. He most recently served as a Supervising Fisheries Biologist in charge of the Inland Fisheries Division's Habitat Conservation and Enhancement Program. Peter will lead the Inland Fisheries Division in its mission to conserve and enhance fish populations and aquatic habitat and continue expanding recreational fishing opportunities. This will be accomplished through the administration of five program areas; Fish Culture (hatcheries), Fisheries Management, Aquatic Resources Education, Diadromous Fisheries Restoration (fish that migrate between fresh and saltwater), and Habitat Conservation and Enhancement. Peter is a native of Connecticut and an avid outdoors person who will bring great passion and commitment to the conservation and management of our fisheries resources.

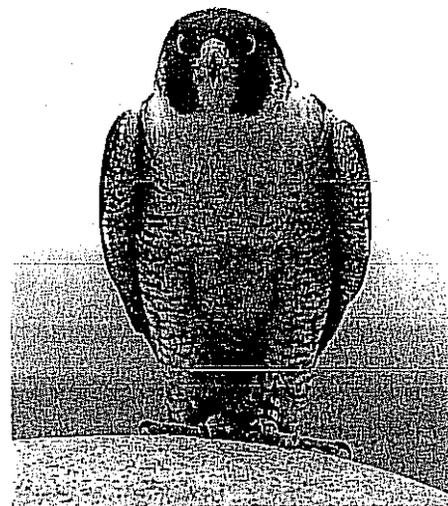
## Emerald Ash Borer Found in New York Near CT Border

Federal agricultural officials confirmed in late July the presence of the emerald ash borer in Saugerties, New York (about 25 miles from the Connecticut border). The emerald ash borer is an extremely destructive plant pest that is responsible for the death and decline of over 25 million ash trees in the United States in urban and forested settings since June 2002. It has metallic green wing covers and a coppery red or purple abdomen, and it is about one-half inch long, with a flattened back.

The Connecticut Agricultural Experiment Station (CAES) is currently surveying for the emerald ash borer, Asian longhorned beetle, and other forest pests. Quarantine regulations are currently in place to prevent the spread of the emerald ash borer and Asian longhorned beetle into the state. The DEP and CAES urge citizens not to transport firewood but to instead buy firewood locally, ideally from only a few miles away or at least in the same county.

Early detection, although difficult, is the best defense against further infestation. Connecticut residents should report possible emerald ash borer infestations to the CAES at 203-974-8474, 203-974-8485, or [CAES.StateEntomologist@ct.gov](mailto:CAES.StateEntomologist@ct.gov) (digital photos of suspect insects are helpful). Suspect infestations also can be reported to the U. S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine via their Web site at [www.aphis.usda.gov](http://www.aphis.usda.gov).

More information on the emerald ash borer can be found on the DEP Website ([www.ct.gov/dep](http://www.ct.gov/dep)), the CAES Web site ([www.ct.gov/caes](http://www.ct.gov/caes)), and at [www.emeraldashborer.info](http://www.emeraldashborer.info).



## Eagles and Peregrines

The bald eagle and peregrine falcon were recently down listed from endangered to threatened in Connecticut when the new Endangered, Threatened and Special Concern species regulations were approved on July 1, 2010. A criteria for threatened status is that the species has no more than 9 occurrences in the state. When the Avian Committee contemplated the status of these 2 species in 2008, they were working with data from 2007, which met the threatened criteria. The committee also considered if the pairs had been active for 5 consecutive years, which is indicative of a population that is stable or continuing to grow.

**Bald Eagles:** A total of 22 pairs were present in Connecticut this year; 18 were active and four were territorial. Of the 18 active pairs, six pairs failed and 12 pairs fledged 23 chicks. Due to inaccessibility or safety concerns about certain nesting trees, only five chicks in three nests were fitted with leg bands. This year, Connecticut had the highest number of failed nests ever recorded since eagles returned to nest in the state. One nest containing eggs just days away from hatching failed on April 1. The day before, heavy rains caused major flooding in Connecticut and Rhode Island. It is speculated that the eagle nest may have filled up with water and the eggs were destroyed or the adults could not keep the eggs dry and warm in such weather conditions. The other five nest failures also occurred after the storms on March 31.

**Peregrine Falcons:** Thirteen pairs were present this year; 10 were active, one was inactive, and two were territorial. Three of the active nests were not accessible, so the number of chicks could not be determined. Of the seven accessible nests, 19 chicks fledged, and 13 chicks at three nest sites were banded.

Julie Victoria, Wildlife Diversity Program

# 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.

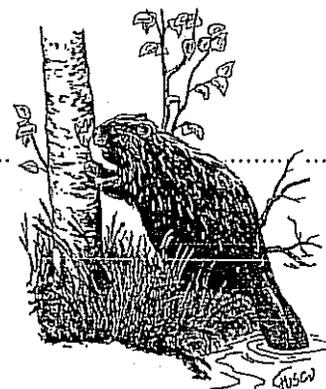
- Nov. 13.....Sessions Woods Fall Hike, starting at 1:00 PM. Join Natural Resource Educator Laura Rogers-Castro of the Wildlife Division for a 2-mile hike at Sessions Woods. Laura will provide participants with an introduction to tree identification and forest ecology. Participants will discover unique facts about Connecticut's native trees and their wildlife value. This program will begin in the exhibit room of the Conservation Education Center. Please wear appropriate shoes for hiking and bring water.
- Dec. 11.....Children's Program: Wildlife Tracks & Signs, starting at 1:30 PM. Learn about wildlife tracks indoors with Natural Resource Educator Laura Rogers-Castro 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 of the Conservation Education Center.

## Hunting Season Dates

- Sept. 15-Nov. 16.....First portion of the deer and turkey bowhunting season on state land.
- Sept. 15-Dec. 31.....Deer and turkey bowhunting season on private land (private land bowhunters in deer management zones 11 & 12 may hunt deer until January 31, 2011) and on state land bowhunting only areas.
- Oct. 2-Oct. 30.....Fall firearms turkey seasons on state and private land.
- Oct. 9.....Junior Pheasant Hunter Training Day
- Oct. 9 & Oct. 11.....Junior Waterfowl Hunter Training Days
- Oct. 16.....Opening day for the small game hunting season.
- Nov. 6 & Nov. 13.....Junior Deer Hunter Training Days
- Nov. 17-Dec. 7.....Private land shotgun/rifle deer hunting season.
- ..... Consult the 2010 Connecticut Hunting and Trapping Guide for specific season dates and details. The 2010-2011 Migratory Bird Hunting Guide contains information on duck, goose, woodcock, rail, and snipe seasons. Both guides are on the DEP Web site ([www.ct.gov/dep/hunting](http://www.ct.gov/dep/hunting)), and also at town halls, DEP facilities, bait and tackle shops, and outdoor equipment stores. Go to [www.ct.gov/dep/sportsmenlicensing](http://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.

**License Fee Credit:** The DEP will be issuing a credit against the cost of 2011 fishing and hunting licenses, permits, and tags for those who purchased these items between October 1, 2009, and April 14, 2010. Find out how to obtain your credit by visiting [www.ct.gov/dep](http://www.ct.gov/dep) or refer to future issues of Connecticut Wildlife.

**Daily Hawk Watch at Lighthouse Point Park in New Haven:** September 1 through November 30, starting at 7:00 AM and continuing as long as the hawks keep flying (see page 5 for more details on hawk watches).



# Connecticut Wildlife

## Subscription Order

Please make checks payable to:

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

Check one:

- 1 Year (\$8.00)     2 Years (\$15.00)     3 Years (\$20.00)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_ Tel.: \_\_\_\_\_

Check one:

- Renewal  
 New Subscription  
 Gift Subscription

Gift card to read: \_\_\_\_\_

Donation to the Wildlife Fund:

\$ \_\_\_\_\_

Help fund projects that benefit songbirds, threatened and endangered species, reptiles, amphibians, bats, and other wildlife species.

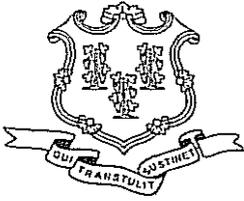
# Connecticut Wildlife

Connecticut Department of Environmental Protection  
Bureau of Natural Resources / Wildlife Division  
Sessions Woods Wildlife Management Area  
P.O. Box 1550  
Burlington, CT 06013-1550

PERIODICALS  
POSTAGE PAID AT  
BURLINGTON, CT,  
AND ADDITIONAL  
OFFICES

EXPIRES COMP.  
MANSFIELD CONSV/INLD WETLANDS  
TOWN HALL  
4 S EAGLEVILLE RD  
STORRS MANSFIELD CT 06268-2574  
|||

Arguably the most spectacular wildlife phenomenon to happen in Connecticut is the annual staging of migrant tree swallows on the lower Connecticut River. During September, they gather every night at dusk, by the hundreds of thousands, to roost in isolated reeds.



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



# SPECIAL ANNOUNCEMENT

## *New Training DVD*

**To:** CT Municipal Inland Wetlands Agencies  
**From:** CT DEP Wetlands Management Section  
**Date:** October 19, 2010  
**Re:** Inland Wetlands Training DVD: An Introduction to Map Reading & Site Plan Review

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The Department of Environmental Protection's Wetlands Management Section has produced a second training DVD for Connecticut's municipal inland wetlands agencies. Two copies of this DVD are being made available to you free of charge. The DVD will also be accessible on the Department's website by late December.

This imaginative DVD focuses on the critical skill of map reading and site plan review, which is essential for municipal inland wetlands agencies to understand in order to properly implement the Connecticut Inland Wetlands and Watercourses Act.

The DVD supplements the Department's Municipal Inland Wetland Commissioners Training Program, in particular, a portion of Segment 1 of the training program that is tailored for the new agency member. It is not intended to replace the current comprehensive training program offered annually.

The Department believes this exciting new educational tool will be beneficial not only to your agency, but to all town land use commissions. If you have questions or comments regarding the DVD or the Department's Municipal Inland Wetland Commissioners Training Program please contact program staff at (860) 424-3019.

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University of Connecticut  
*Office of the Vice President and  
Chief Operating Officer*

Office of Environmental Policy

Richard A. Miller, Esq.  
*Director*

October 15, 2010

Ms. Denise Ruzicka  
Director, Inland Water Resources Division  
CT Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

RE: University of Connecticut Campus Drainage Master Plan, Eagleville Brook TMDL,  
and the Swan Lake Outfall Improvement Project

Dear Ms. Ruzicka:

As we discussed at our meeting on August 4, 2010, the University of Connecticut is actively pursuing potential alternatives to the project known as the 55-acre diversion, as described in the Campus Drainage Master Plan (CDMP) and 2009 Memorandum of Agreement (MOA) with DEP. These alternatives coincide with, and may include, recent Low Impact Design (LID) stormwater retrofits on campus and similar projects UConn has proposed to address the Eagleville Brook TMDL. However, pursuing these alternatives will lead to delays in the schedule stipulated in the MOA and may lead to a modification of the MOA. Therefore, until the alternatives are properly evaluated, we are confirming our plans to suspend all work on the CDMP projects, including improvements to the Swan Lake outfall. We understand that, for these reasons, DEP is amenable to such delays and possible MOA modifications.

As you know, the diversion identified in the CDMP was intended to offset flood concerns along Eagleville Brook downstream of campus by diverting drainage into the Roberts Brook watershed. Based on preliminary analysis and recognizing that a number of regulatory permits would be needed, it was determined that the Roberts Brook watershed was capable of accepting the increased volume without detrimental effects so long as the diversion was preceded by several other projects identified in the CDMP (i.e., Mirror Lake V-notch weir, and water quality improvements at Swan Lake and W-lot parking area).

*An Equal Opportunity Employer*

31 LeDoyt Road Unit 3055  
Storrs, Connecticut 06269-3055

Telephone: (860) 486-8741  
Facsimile: (860) 486-5477  
e-mail: rich.miller@uconn.edu

Meanwhile, as UConn negotiated the final details of the CDMP, DEP established the Eagleville Brook TMDL. Because the TMDL identifies stormwater runoff associated with impervious cover (IC) as the cause of impaired water quality in Eagleville Brook, its goals are similar to those of the CDMP. The TMDL calls for effectively disconnecting IC within the watershed in order to reduce flow into the brook.

Subsequently, in collaboration with the Town of Mansfield and DEP, and utilizing a Section 319 grant, UConn, led by staff at the Non-point Source Education of Municipal Officials (NEMO) program and its associated team of technical consultants, has identified many prospective TMDL projects for IC disconnections throughout campus.

Even before the TMDL study was completed, UConn had worked toward the goal of restoring Eagleville Brook by installing various LID features that have helped disconnect IC in the watershed. LID features within the watershed include several rain gardens, a terrace with porous architectural pavers, and more recently two permeable surface parking lots and the Gant Plaza green roof. Additional LID installations are underway at UConn's Northwood Apartments and are in design plans for several ongoing classroom building projects.

In light of the recently-published TMDL study and UConn's progress implementing various stormwater BMPs and LID features in recent years, the University proposes an engineering study to re-evaluate the CDMP by incorporating and quantifying existing and proposed IC disconnections. We are hopeful that, on a watershed-scale, the TMDL-improvements will have a positive effect on mitigating the flood hazards along Eagleville Brook such that the 55-acre diversion can be minimized or even eliminated as a result.

We understand that a proposed alternative to this diversion would have to accomplish a comparable reduction in Eagleville Brook's flood potential, up to and including the 100-year storm event. Since flooding of Eagleville Brook has historically occurred at points downstream of our campus, the volume and rate of runoff would have to be reduced through implementation of on-campus TMDL or LID projects and practices that, individually or combined, will serve to remove the captured volume of runoff from the discharge hydrograph for the same on-campus segment of the watershed.

We offer to suspend all progress on design, permit applications, and construction of the CDMP projects, including the Swan Lake outfall project, until the LID/flood mitigation study is complete and each CDMP project can be re-evaluated in light of the results. Suspending these projects will cause delay in the schedule stipulated in the MOA. However, it is our understanding that DEP is amenable to these delays.

It is also our understanding that, should the proposed engineering study generate the results we hope for, we can pursue those projects as an alternative to the CDMP projects and DEP would be open to an addendum to, or modification of, the MOA.

October 15, 2010

Further, should our proposed study be unable to support a complete elimination of the CDMP projects (e.g., full implementation of feasible LID projects still results in a predicted downstream flood hazard that is unacceptable), we expect to resume the construction of the Swan Lake outfall improvements previously approved under by DEP under General Permit authorization IW-200903033GP. Subsequent projects may be reduced in size compared to what was proposed in the CDMP, depending on the amount of flood impact that can be reasonably mitigated by feasible LID implementation.

Lastly, we have continued to improve our working relationship with local officials and Mansfield residents on drainage and wetland issues. The University has committed to communicating conceptual plans that affect drainage and wetlands with the Town of Mansfield through the Director of Planning well before submitting any permit applications. All such projects, including those in the CDMP, will be vetted through the town regardless of level of permitting and public noticing required.

Please contact me or Jason Coite, Environmental Compliance Analyst (860-486-9305), if you have any questions or disagree with the objectives or approach outlined in this letter.

Sincerely,



Richard Miller

Director of Environmental Policy

cc: Betsey Wingfield, Bureau Chief, CT DEP Bureau of Water Protection and Land Reuse  
Christopher Bellucci, CT DEP Bureau of Water Protection and Land Reuse  
Gregory Padick, Mansfield Director of Planning  
Quentin Kessel, Mansfield Conservation Commission  
Chester Arnold, CT Non-point Source Education of Municipal Officials Program  
Michael Dietz, CT Non-point Source Education of Municipal Officials Program  
Joseph Bushey, Assistant Professor, UConn Department of Civil and Environmental Engineering

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