

**MEETING NOTICE AND AGENDA**  
**MANSFIELD INLAND WETLANDS AGENCY**  
**Monday, January 4, 2016 ■ 6:30 PM**

Audrey P. Beck Municipal Building ■ 4 South Eagleville Road ■ Council Chambers

- 1. Call to Order**
- 2. Roll Call**
- 3. Review of Minutes**
  - a. 12/07/2015
  - b. 12/16/2015 – Special Meeting Field Trip
- 4. Communications**
  - a. Conservation Commission Minutes
  - b. Monthly Business Memorandum
- 5. Public Hearing**
  - a. **W1557 – C. L. Niarhakos, 101 East Road, 3 lot re- subdivision**  
Item tabled until 1/19/16.
- 6. Old Business**
  - a. **W1557 – C. L. Niarhakos, 101 East Road, 3 lot re- subdivision**  
Item tabled until 1/19/16.
  - b. **W1559 – Storrs Lodges, LLC, Hunting Lodge Road (Parcel ID 15.21.3), Application to Amend Inland Wetlands and Watercourses Map**  
Item tabled until 2/1/16
  - c. **W1560 – M. Slowik, 895 Mansfield City Road, Lot Split for Single Family Dwelling**  
Memo from Inland Wetland Agent
- 7. New Business**
- 8. Reports from Officers and Committees**
- 9. Other Communications and Bills**
  - a. Society of Soil Scientists of Southern New England
  - b. 2015 Legislation and Regulation Advisory, DEEP
  - c. Connecticut Wildlife, November/December Issue
- 10. Adjournment**

**DRAFT Minutes**  
Mansfield Inland Wetlands Agency  
Regular Meeting  
Monday, December 7, 2015  
Council Chambers, Audrey P. Beck Municipal Building

Members present: C. Ausburger, B. Chandy, J. Goodwin, R. Hall, G. Lewis (arrived at 7:02 p.m.), K. Rawn, B. Ryan, V. Ward, S. Westa

Members absent:

Alternates present: P. Aho, K. Holt

Staff present: L. Painter, Director of Planning and Development; J. Kaufman, Wetlands Agent

Chairman Goodwin called the meeting to order at 7:00 p.m. and appointed Aho to act in the absence of members.

**Review of Minutes:**

- A. 11-2-15 Regular Meeting: Hall MOVED and Ausburger seconded to approve the 11-2-15 minutes. MOTION PASSED UNANIMOUSLY. Ryan disqualified herself.
- B. 11-16-15 Special Meeting: Chandy MOVED and Ryan seconded to approve the 11-16-15 Special Meeting minutes. MOTION PASSED UNANIMOUSLY.

**Communications:**

The Conservation Committee meeting minutes and Kaufman's monthly business memo were noted.

**Public Hearing:**

- A. **W1557 – C.L. Niarhakos, 101 East Road, 3 lot re-subdivision:** Lewis arrived at 7:02 p.m.; Aho no longer seated. Ryan MOVED and Ward seconded to extend the public hearing on the 3-lot subdivision application of Christopher and Lindsey Niarhakos (File W1557), 101 East Road, Williams Heights subdivision, until January 4, 2016. MOTION PASSED UNANIMOUSLY.

**Old Business:**

- A. **W1557 – C.L. Niarhakos, 101 East Road, 3 lot re-subdivision:** Item tabled. Public hearing continued.

**New Business:**

- A. **W1559 – Storrs Lodges, LLC, Application to Amend Inland Wetlands and Watercourse Map:** Westa MOVED and Hall seconded to:

- Receive the application to change or amend the Inland Wetlands and Watercourses Map, Mansfield, CT, submitted by Storrs Lodges, LLC (IWA File #1559) under the Inland Wetlands and Watercourses Regulations of the Town of Mansfield on property located on the west side of Hunting Lodge Road (parcel ID 15.21.3) as shown on a map dated 2/5/2005 and revised through 11/30/2015 and as described in application submissions;
- Refer said application to staff and the Conservation Commission for review and comments;
- Schedule a Public Hearing for February 1, 2016; and
- Engage the services of Pietras Environmental Group, LLC., to provide independent technical peer review on the application.

Pursuant to Section 8.6 of Mansfield's Inland Wetlands and Watercourses Regulations, all fees incurred for this review will be the responsibility of the applicant. A deposit in the amount of \$1,300.00 shall be provided by the applicant prior to issuance of a notice to proceed. Any unspent funds shall be returned to the applicant.

- B. **W1560 – M. Slowik, 895 Mansfield City Road, Lot Split for Single Family Dwelling:** Kaufman clarified that the property is not located in the public water supply. Chandy MOVED and Ryan seconded to receive the application submitted by M. Slowik (IWA File #1560) under the Wetlands and Watercourses Regulations of the Town of Mansfield for single family dwelling on property located at 895 Mansfield City Road as shown on a map dated 10/23/2015 and as described in application submissions, and to refer said application to staff and the Conservation Commission for review and comments. MOTION PASSED UNANIMOUSLY.
- C. **J-5 Jurisdictional Ruling Dunham Pond Road: Kaufman corrected the motion to state** that the subject land is owned by the Town of Mansfield. Lewis MOVED and Chandy seconded to approve a Jurisdictional Ruling finding that the removal of a root mass caused by an uprooted tree and repair of the stream channel on land owned by the Town of Mansfield (IWA File # J-5) as shown on a map dated 12/1/2015 and as described in the associated attachments is permitted as a non-regulated activity pursuant to Section 4.0 of the Inland Watercourses and Wetlands Regulations of the Town of Mansfield. MOTION PASSED UNANIMOUSLY.

**Reports from Officers and Committees:**

A Field Trip to 895 Mansfield City Road was scheduled for 3:00 p.m. 12-16-2015. Inasmuch as the Storrs Lodges, LLC application, on Hunting Lodge Road is a map amendment request, and not a specific application for a project, no field trip is scheduled at this time.

**Other Communications:**

Chair called the Agency's attention to the CACIWC communications, stating they provided a good summary of Agency approval parameters and suggested the members review the material.

**Adjournment:**

Chairman Goodwin declared the meeting adjourned at 7:13 p.m.

Respectfully submitted,

Vera S. Ward, Secretary

**DRAFT MINUTES**

MANSFIELD PLANNING AND ZONING COMMISSION  
INLAND WETLANDS AGENCY  
SPECIAL MEETING – FIELD TRIP  
December 16, 2015

Members present: B. Ryan, K. Holt, P. Aho,  
Conservation: S. Lehmann,  
Staff present: Jennifer Kaufman, Inland Wetlands Agent; Janell Mullen, Assistant  
Planner

The field trip began at approximately 3:10 p.m.

**W1560 – M. Slowik, 895 Mansfield City Road, Lot Split for Single Family Dwelling:**

Members were met on site by M. Slowik. Members observed current conditions, and site characteristics. No decisions were made.

The field trip ended at approximately 3:30 p.m.

Town of Mansfield  
**CONSERVATION COMMISSION**  
Meeting of 16 December 2015  
Conference B, Audrey P. Beck Building  
**(draft) MINUTES**

*Members present:* Aline Booth (Alt.), Neil Facchinetti, Quentin Kessel, Scott Lehmann, Grant Meitzler, John Silander, Michael Soares. *Members absent:* Joan Buck (Alt.), Robert Dahn.  
*Others present:* Jennifer Kaufman (Wetlands Agent).

1. The meeting was **called to order** at 7:36p by Chair Quentin Kessel. In Dahn's absence, Booth was appointed a voting member for this meeting.

2. The **draft minutes** of the 18 November 2015 meeting were approved, with the correction that tense in the final sentence of item 7 (Storrs Center update) be changed from "is now under construction" to "has been constructed".

**3. IWA referrals.**

a. **W1557 (Niarhakos, 101 East Rd)** was again tabled, as the applicant has not had time to respond to the latest comments from CME. The Commission should be prepared to discuss this application at its 20 January 2016 meeting and to submit any comments it may have within a week.

b. **W1559 (Storrs Lodges, LLC, Hunting Lodge Rd parcel 15.21.3).** This application, referred to the Commission FYI only, concerns the parcel for which the Ponde Place development was proposed in 2009. This proposal was withdrawn when UConn would not agree to supply water to the development. As a prelude to resurrecting it, the applicant is requesting that the Town's wetland and watercourses map be amended to reflect a field survey of wetlands on the parcel by George Logan (REMA Ecological Services). According to Logan, there are 6.68 acres of wetland on the 45-acre parcel, whereas the Town's map shows 15.29 acres. The Town has engaged Thomas Pietras (Pietras Environmental Group) to review Logan's work. A public hearing on the application is scheduled for 01 February 2016.

c. **W1560 (Slowik, 895 Mansfield City Rd).** The applicant proposes to split off a 6-acre portion of his 12-acre parcel on Mansfield City Rd as a new building lot. The land, viewed by Lehmann on an IWA Field Trip earlier on 12/16, is essentially level to the proposed house site, where it then slopes to the SW. A wetland in a shallow depression blocks access to the house site, save for a narrow strip along the NW boundary of the parcel, where the driveway would be 20 ft from the wetland at its closest point. The house & septic system (resp.) would be at least 100 ft & 140 ft (resp.) from the wetland. After some discussion the Commission agreed (**motion: Lehmann, Soares**) that a significant wetlands impact does not appear likely but that, if possible, the driveway should be moved closer to the boundary & farther from the wetland. All were in favor save Booth, who abstained, observing that virtually all the development would be in the regulated area.

4. **Conservation easement monitoring.** The Elise Rd property owners have been notified; Kessel & Facchinetti will monitor these easements at 10:00a, Saturday, 12/19, and others are welcome to join them. Silander plans to monitor easements in the Shelter Falls Development from Town land across the brook in January; Kaufman should notify property owners about this in advance.

5. **Mirror Lake watershed study.** Silander mentioned that a limnologist at UConn has been studying Mirror Lake and its watershed, and suggested inviting her to make a presentation to the

Commission. The Commission agreed that this would be of considerable interest, and asked Silander to see if she'd be willing to do it.

**6. Adjourned** at 8:42p. Next meeting: 7:30p, Wednesday, 20 January 2016.

Scott Lehmann, Secretary, 17 December 2015.



# Town of Mansfield

## Inland Wetlands Agency

**Date:** December 29, 2015  
**To:** Mansfield Inland Wetlands Agency  
**From:** Jennifer Kaufman, Inland Wetlands Agent  
**Subject:** Monthly Business Report

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### **Mansfield Auto Parts - Route 32**

I am in the process of determining the status of this License and if they need to come in for a renewal. The last IWA license (File #1403) was issued in 2008.

### **Agent Approvals**

F. and M. Vernic, 86 Candide Lane (File #A5) - 12x33 foot deck, approximately 140 feet from the edge of wetlands.



# Town of Mansfield

## Department of Planning and Development

**Date:** December 28, 2015  
**To:** Mansfield Inland Wetlands Agency  
**From:** Jennifer Kaufman, Inland Wetlands Agent  
**Subject:** 895 Mansfield City Road (File #W1560)  
M. Slowik  
Description of work: Single Family Dwelling  
Map Date: 10/23/2015

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### Notifications

- The applicant has paid the required application fee
- The applicant has submitted certified mail receipts for notices mailed to abutters

### Project Overview

The applicant proposes to construct a single family dwelling on the southwesterly side of Mansfield City Road. The majority of the activity is proposed within the upland review area. The closest activity to wetlands is the proposed driveway, which is located on 20 feet from the edge of wetlands. The site is level and the applicant has proposed silt fence in areas where activity could potentially negatively impact wetlands. I recommend that all material be stockpiled/distributed at least 50 feet from the edge of wetlands.

### Recommendation/Suggested Motion

\_\_\_\_\_ MOVES, \_\_\_\_\_ seconds to grant an Inland Wetlands License pursuant to the Wetlands and Watercourses Regulations of the Town of Mansfield to M. Slowik (File #W1560) for Single Family Dwelling on property owned by the applicants and located at 895 Mansfield City Road as shown on plans dated 10/23/2015 and as described in application submissions.

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

1. Appropriate erosion and sedimentation controls shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized; and
2. All material that is excavated or used as fill on the site shall be stockpiled and or distributed at least 50 feet from the edge of wetlands.

*895 Mansfield City Road (File #W1560)*

*M. Slowik*

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This approval is valid for five years (until January 4, 2021) 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.

**Society of Soil Scientists of Southern New England**  
**P.O. Box 258 • Storrs, CT 06268**

Fall 2015

Dear Inland Wetland Commission Members,

Enclosed is one copy of the latest edition of the "Registry of Soil Scientists" published by the Society of Soil Scientists of Southern New England (SSSSNE). The brochure is being distributed mainly in Connecticut, to local agencies and the public at no charge. Additional copies of the Registry are available from SSSSNE. Also, the Registry is on-line on the Society's webpage: <http://nesoil.com/SSSSNE/>

The Registry lists soil scientists who perform wetland delineations or other environmental evaluations in their jobs as private consultants, educators, or government employees. Educational background, employer, and experience are also listed.

Please remember that it is not a state requirement that individual soil scientists must be members of the Society of Soil Scientists of Southern New England, be listed in this Registry, or be ARCPACS certified.

Sincerely,

*Margaret Washburn, M.S.*

Margaret Washburn, M.S.  
Vice President, SSSSNE

**The Society of Soil Scientists  
of  
Southern New England**



*Registry of Soil Scientists*

2015

## FOREWORD

The Society of Soil Scientists of Southern New England is pleased to present a listing of its members for 2015 who meet specific qualification standards in the field of soil science. We believe that this Registry of Soil Scientists will help in answering private and public demands for professional soil science assistance in Connecticut, Massachusetts, and Rhode Island. Although persons listed in this Registry meet specific requirements, the Society is not responsible for quality or costs involved in work performance. This brochure is available from the Society of Soil Scientists of Southern New England, P.O. Box 258, Storrs, CT 06268. Our website is:

<http://ssssne.org>

*Mark Stolt, President*

## THE SOCIETY OF SOIL SCIENTISTS OF SOUTHERN NEW ENGLAND

### Registry of Soil Scientists

The purpose of the Society Registry is to identify trained and qualified soil scientists, to foster and maintain professional competency, and to protect the public interest in the area of responsible use of soil and land resources. Standards for the Registry are based on formal education in soil science and on field, research and teaching experience primarily as they relate to soil classification, mapping and interpretation. The Society recognizes soil scientists in the private, municipal, state, and federal sectors.

This Registry includes year 2015 Professional and Basic Members of the Society of Soil Scientists of Southern New England. The Board of Directors determines the qualification and rules on the enrollment of each member.

## **QUALIFICATION STANDARDS**

### ***Professional Member Status:***

Requires a baccalaureate degree with thirty semester-hours, or equivalent, in biological, physical, chemical, and earth sciences, including at least fifteen semester-hours of soil science courses meeting the following distribution, and approval of the Board of Directors

- A minimum of three credits in Soil Genesis, Classification, Morphology, and Mapping; and
- The remaining soil science courses in at least three of the following six categories:
  - Introductory Soil Science
  - Soil Chemistry/Fertility
  - Soil Physics
  - Soil Microbiology/Biochemistry
  - Soil Survey Interpretations/Soils and Land Use/Soils and the Environment
  - Geology/Independent Study/Seminar (three-credit maximum). Course(s) must be related to Soil Science.

**and**

Requires three years of professional experience, or equivalent, in Soil Science that meets the approval of the Board of Directors.

### ***Basic Member Status:***

Requires the educational background as outlined for Professional Member Status, but does not meet the three-year professional experience requirement.

On the following pages is a listing of Professional and Basic Soil Scientist Members approved by the Society Board of Directors.

Names are in alphabetical order. The listing provides a resume of education, work experience, and present position of each qualifying member.

\* Denotes Basic Soil Scientist Member

**Kathy A. Alexander\* – State Employee**

BS Natural Resources (Soil Science), University of Rhode Island. Experience: Two years compiling soil maps for publication. Environmental Analyst since 1982 with the Connecticut Department of Environmental Protection, Solid Waste Division. Presently: Since 1988, Compost Specialist, Connecticut Department of Environmental Protection Recycling Program (860) 424-3239. 79 Elm Street, Hartford, CT 06106-5127.

**Mark W. Alexander – State Employee**

BS Natural Resources (Soil Science), University of Rhode Island. Experience: Over twenty-five years in wetland boundary delineation and on-site determinations of soil suitability for subsurface waste disposal in Connecticut and Rhode Island. Transportation Planner since 1985 with the CT DOT. Presently: Since 2010, Assistant Director, Office of Environmental Planning, Connecticut Department of Transportation (860) 594-2931. 2800 Berlin Turnpike, Newington, CT 06131-7546.

**Christopher P. Allan – Consulting Firm Employee**

BS Biology, University of Bridgeport; MS Environmental Science, Yale University. Graduate soil science courses, University of Massachusetts. Experience: Environmental Consultant and Professional Wetland Scientist. Presently: Since 1982, Senior Associate, LandTech Consultants Inc., specializing in wetland delineations, environmental evaluations, permitting, wetland restoration and creation, erosion and sediment control planning and design, on-site sewage disposal system evaluation, and third party reviews. (203) 405-6361. 31 Franklin St. Westport, CT 06880. e-mail: cpallan@landtechconsult.com

**Arthur Allen – Consulting Firm Employee**

BS Natural Resource Studies, University of Massachusetts. New England Regional Soil Science Certificate, Univ. of New Hampshire. CPSSc #22529 (ARCPACS), Certified Wetland Scientist #19 (NH), Certified Erosion, Sediment & Stormwater Inspector #965. Experience: Soil Scientist, Harvard Forest, Massachusetts, and Soil Scientist, USDA-NRCS, Franklin County, Massachusetts. Presently: Since 1995, Vice President/Soil and Environmental Scientist, EcoTec, Inc. (508) 752-9666 ext. 24 102 Grove Street, Worcester, MA 01605 email: aallen@ecotecinc.com website: www.ecotecinc.com

**Philip Angell\* – Self Employed**

BSE Environmental Geography and MS Soil Science, University of Massachusetts 2004, subaqueous soil concentration. angell\_phil@yahoo.com (781) 775-5132.

**David Askew – Conservation District Employee**

B.S. Environmental Science, Concordia College. Graduate soil science courses, University of Massachusetts, CPESC #2182. Experience: Over 20 years performing wetland delineation and evaluation, erosion and sediment control, and natural resource evaluation. Presently: Natural resource planning and evaluation for municipalities and residents in north-central Connecticut. (860) 875-3881 North Central Conservation District, 24 Hyde Avenue, Vernon, CT 06066; e-mail: david.askew@snet.net

**Amanda Atwell – Consulting Firm Employee**

BS Environmental Science, University of Florida; MS Soil Science, Virginia Tech, CPSS 34308 (ARCPACS). Wetland and soil scientist since 2003, including 6 months as a soil survey consultant for Ontario County New York. Presently: Project Scientist, Epsilon Associates, Inc. specializing in permitting, EIS/EIR preparation, hydric soil and wetland delineation, environmental monitoring, wildlife habitat assessments, and wetland mitigation and restoration. (987) 897-7100. 3 Clock Tower Place, Suite 250, Maynard, MA 01754. email: aatwell@epsilonassociates.com

**Albert N. Averill, Jr. – Federal Employee**

BS Resource Development (Soil Science), University of Rhode Island. Soil Science Institute, Texas A&M University. CPSSc/CPSC #2706 (ARCPACS). Since 1980; Soil Scientist USDA - NRCS in New York and Massachusetts including positions as Soil Survey Project Leader and Soil Data Quality Specialist for the glaciated northeast. Presently, State Soil Scientist for Massachusetts and Vermont, USDA-NRCS, 451 West Street, Amherst, MA 01002-2995. (413) 253-4382. e-mail: al.averill@ma.usda.gov

**Katie Bednaz – Private Consultant**

A Professional Wetland Scientist #1906 and Registered Soil Scientist with a BS in Environmental Sciences, minoring in Wildlife & Fisheries Conservation and currently completing MS in Plan and Soil Sciences, University of Massachusetts, Amherst. Experience since 2001 specializing in wetland delineation, mitigation and restoration plans, municipal 3rd party review, and sedimentation and erosion control specification. Former Wetlands Agent for CT municipalities and MA Conservation Commission member. Presently: Private Consultant, Freshwater Wetland Services, 2 Collins Street, Westfield, MA 01085, (413) 695-2195, email: freshwaterwetland@gmail.com

**James R. Boyd, Jr.\* – State Employee**

BS and MS Natural Resources Science, University of Rhode Island. Experience: Environmental regulatory program administration, site plan review and policy development in Rhode Island and Vermont state governments. Presently: Since 2005, Coastal Policy Analyst – Rhode Island Coastal Resources Management Council, 4808 Tower Hill Road, Wakefield, RI 02879. (401) 783-3370. Email: jboyd@crmc.ri.gov

**Ian Broadwater – Consulting Firm Employee**

BS in Plant and Soil Science, University of Maine: Over 28 years of experience in environmental evaluation and consulting. Areas of expertise are wetland science and soil evaluation. Certified Wetland Scientist-NH/Certified Soil Scientist-ME. Senior Scientist with Normandeau Associates, Inc. since 2008: Conduct wetland delineation, soil surveys, and permit preparation and consulting for a variety of clients including large commercial entities, residential developers and property owners. Designed or co-designed over 150 acres of created, restored, or enhanced wetland and also has significant experience in stream and river restoration. Tel (207) 518-6765, Normandeau Associates, Inc., 8 Fundy Road, Falmouth, ME, 04105. ibroadwater@normandeau.com

**Martin F. Brogie\*, LEP – GEI Consultants, Inc.**

Soil Scientist and Licensed Environmental Professional with twenty five years of experience conducting wetland delineation and assessment, local, state and federal permitting, habitat assessments, vernal pool studies and wetland and upland mitigation/restoration plans. Provides expert review of wetland permit applications for various municipalities, combines wetland and hazardous waste skills for the remediation and restoration of contaminated wetland sites. GEI Consultants, Inc. 455 Winding Brook Drive, Glastonbury, CT (860) 208-0360 mbrogie@geiconsultants.com

**William C. Burgess\* – Consulting Firm Employee**

BS Environmental Science and Management, University of Rhode Island. Experience: Four years Soil Conservationist with the USDA-NRCS in CT, ME, and NH. Presently: Since 2013, Project Scientist, HRP Associates Inc., specializing in environmental site assessment, soil and groundwater investigation, site remediation, wetland delineation, and permitting. (203)380-1395; bill.burgess@hrpassociates.com; 999 Oronoque Lane, 2nd Floor, Stratford, CT 06614.

**Shawn E. Callaghan – Consulting Firm Employee**

B.S. Natural Resources, University of Connecticut; M.A. Sustainable Landscape Planning and Design, Conway School of Landscape Design since 1999, specializing in wetland habitat restoration; wetland delineation, assessment, permitting, and mitigation; wildlife, vernal pool, vegetation and protected species surveys; stormwater permitting; biological assessments for threatened and endangered species; and environmental documentation. He is a Certified Professional in Low Impact Development (LID) and currently Project Manager/Associate at Fitzgerald & Halliday, Inc. (860) 256-4918, 416 Asylum St., Hartford, CT 06013. Email: scallaghan@fhiplan.com

**Richard Canavan – Consulting Firm Employee**

BA Botany, Connecticut College; MS Soil Science, Cornell University; PhD Biogeochemistry, Utrecht University. Presently: Senior Environmental Scientist, specializing in watershed and water quality assessment, environmental planning and permitting, wetland delineations and evaluations (860) 928-7848, 32 Crabtree Lane, Woodstock, CT 06281 e-mail: rcanavan@cmeengineering.com

**Martina A. Castanho – Private Consultant**

BS Natural Resources, University of Rhode Island. CT LEP #236, Certified Professional Soil Scientist #2302. Experience: Soil Scientist since 1978, Five years Soil Scientist and Soil Conservationist, USDA-NRCS. Three years Environmental Scientist, US EPA. Soil Scientist with SES, Inc. since 1987. Available for soil investigations, wetland delineations, Phase I, II, III Environmental Assessments, soil and water sampling, contaminated site remediation, and permeability testing. DBE Firm. (860) 739-6691 Soil & Environmental Services, Inc., 61 Plants Dam Road, East Lyme, CT 06333 e-mail: soilinc@gmail.com

**Ian Cole – Private Consultant**

BS Environmental Science and Management, University of Rhode Island; Professional Wetland Scientist #2006; Soil and Wetland Scientist available for Local, State and Army Corps of Engineers wetland delineations, soil investigations, vegetative and wildlife inventories, RTE consultation, vernal pool surveys, mitigation/restoration, and permit preparation. (860) 514-5642, 6 Northwinds Drive, Ivoryton, CT 06442, email: itcole@gmail.com

**David O. Cook\* – Private Consultant**

BA in Geology, Hamilton College; Ph.D. in Geology, University of Southern California; soil science courses, University of Connecticut. Connecticut Licensed Environmental Professional #122. Thirty-seven years' experience in geology and environmental science. Presently: President of Geoscience Technical Services Inc. since 1989, (860) 434-3144, P.O. Box 1036, Lyme, CT 06371. e-mail: d.cook@geosciencetechsv.com

**Christie Coon – Private Consultant**

BA Environmental Science, State University of New York at Purchase; MES Inland and Tidal Wetlands, Yale Forestry and Environmental Studies. Soil science courses, University of Massachusetts. Certified Professional Wetland Scientist. Experience: Thirty-one years in the inland wetland field, ten as Senior Environmental Officer, City of Norwalk, Connecticut. Since 2003: Principal Soil Scientist, Wetland Resource LLC, specializing in CT inland wetland and tidal delineation, and environmental consulting. (203) 661-3220. P.O. Box 7520, Greenwich, CT 06836 e-mail: christie.coon@gmail.com, web: www.wetlandresource.com

**Douglas E. Cooper – Private Consultant**

BS Geology and MS Agronomy, University of Connecticut. Experience: Forty years' experience in wastewater treatment, subsurface sewage disposal and wetlands management. Work experience includes local, regional and state agencies. Presently: Principal Earth Scientist, Cooper Environmental Services, LLC, specializing in wetlands, subsurface sewage disposal, site assessment, and soil evaluation (508) 627-9586. 33 Old Dunham's Corner Way, Edgartown, MA 02539. e-mail: coopenv@comcast.net web: www.cooper-environmental.com

**James R. Cowen\* – Private Consultant**

BA Biology, University of California at San Diego; MA Landscape Design, Conway School of Landscape Design. Graduate studies in soil science, University of Massachusetts. Presently: Since 1995, Wetland Scientist specializing in wetland delineation (including Army Corps), soil mapping, functional evaluation, wetland restoration, mitigation design and botanical surveys (860) 535-0625. 138 Mystic Road, North Stonington, CT 06359 e-mail: jrcowen@comcast.net

**Steven J. Danzer – Private Consultant**

PhD Natural Resources, Univ. of Arizona. BS Animal Sciences, Cornell Univ. Certified Professional Wetland Scientist and CT Licensed Arborist. In Natural Resources field since 1992, including nine years for the CT towns of Greenwich and Stratford. Since 2000, principal of Steven Danzer PhD & Associates LLC, available for wetland surveys, delineation and studies, environmental impact analysis, expert testimony, municipal review, and arboricultural consulting. 16 Oxford Court, Stamford CT 06902 Danzer@CTWetlandsConsulting.com, www.CTWetlandsConsulting.com (203) 451-8319

**Gillian T. Davies – Consulting Firm Employee**

BA, Williams College; MES Ecosystem Ecology, Yale University School of Forestry and Environmental Studies. Completed New England Regional Soil Science Certificate Program, Professional Wetland Scientist #2181 (Society of Wetland Scientists), New Hampshire Certified Wetland Scientist #71. CESSWI. Experience: Have worked as a Wetlands and/or Soils Scientist since 2001, with four years (1999 - 2003) as a Wetlands Circuit Rider, Massachusetts Department of Environmental Protection and the rest as a consultant. Presently: Senior Wetland Scientist, BSC Group, Inc., specializing in permitting, hydric soil and wetland delineation, climate change adaptation, impact analysis, and wetland mitigation and restoration (617) 896-4524. 33 Waldo Street, Worcester, MA 01608 e-mail: gdavies@bscgroup.com

**Paul G. Davis\* – Consulting Firm Employee**

PhD Biological Sciences, University of Rhode Island. Post graduate soil science study, University of Massachusetts. Board of Directors and Visiting Professor of Environmental Studies, American University of the Caribbean. CPSSc #24837 (ARCPACS), Professional Wetland Scientist (PWS #356) Experience: Twenty five years as wetlands and aquatic scientist. Four years Advisor to US Congress and NOAA. Six years Research Scientist on aquatic pollution. Presently: Principal Environmental Scientist, GZA GeoEnvironmental, Inc., specializing in wetland delineation, assessment, mitigation, and permit applications. (413) 726-2100. 1350 Main Street, Suite 1400, Springfield, MA 01103 e-mail: paul.davis@gza.com

**Eric Davison\* – Private Consultant**

BS Wildlife Management, University of Massachusetts. Completed New England Regional Soil Science Certificate Program. Presently: Since 1998, specializing in wetland delineation & evaluation, GIS mapping, avian & herpetofauna inventory, and wildlife habitat evaluation (860) 803-0938. 10 Maple Street, Chester, CT. e-mail: ericrdavison@gmail.com

**Matthew Davison – Private Consultant**

BS Forestry, University of Massachusetts. Completed New England Regional Soil Science Certificate Program, University of Massachusetts and University of Connecticut. Experience: Twelve years specializing in wetland delineation & evaluation, soil mapping, local, state and federal permitting. Presently: Senior Environmental Scientist, Tighe & Bond (860) 704-4773. 213 Court Street, Suite 900, Middletown, CT 06457 email: medavison@tighebond.com

**Kenneth A. Deshais – Consulting Firm Employee**

BS Wildlife Management, BS Environmental Sciences and MS Soil Science, University of Massachusetts. CPSSc #15285 (ARCPACS). Presently: Since 1994, Environmental Scientist, Tetra Tech, responsible for soil and wetland investigations, wetland replication/restoration design, erosion control specification, wildlife habitat evaluations, and environmental impact analysis and permitting (508) 903-2410. One Grant Street, Framingham, MA 01701-9005 e-mail: ken.deshais@tetrattech.com

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BS Resource Development (Environmental Management), University of Rhode Island. Experience: Since 1997 specializing in wetland delineation, mitigation, functional assessment, permitting, and hydric soil evaluation. NPDES Storm Water Pollution Prevention Plan (SWPPP) preparation and sedimentation and erosion control inspections. Wildlife habitat and vernal pool assessments. Presently: Senior Wetland Scientist, AECOM Environment (978)-905-2355. 250 Apollo Drive, Chelmsford, MA 01824. email: matt.devlin@aecom.com

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## SOCIETY OBJECTIVES

- To advance the profession of soil science as it relates to soil classification, mapping and interpretation.
- To improve and maintain the stature of the professional soil scientist in Southern NE.
- To promote high quality standards among soil scientists.
- To foster broader recognition of the need, use, and application of soil science in the public and private sector.
- To cooperate with counsel colleges and universities in adjusting curricula to the changing needs of the soil scientist.
- To function as a communication medium between professional soil scientists, allied disciplines, and professional organizations.
- To cooperate with other disciplines and professional organizations to advance causes of mutual interest and concern.
- To work toward state registration and certification of soil scientists.
- To foster good land use and environmental programs through the use of soil resource information

## CODE OF ETHICS

To establish and maintain a high standard of integrity, skills and practice in the Soil Scientist profession, the following shall be binding upon every Society Member.

### IN RELATIONS WITH THE PUBLIC, THE PROFESSIONAL SOIL SCIENTIST

- Shall express an opinion on Soil Science subjects only when thoroughly informed and only when it is founded on adequate knowledge and honest conviction.
- Shall endeavor to extend public knowledge and appreciation of Soil Science and its achievements and to foster broader recognition of the need, use, and application in government and private business.
- Shall oppose and discourage any untrue, unsupported, and/or exaggerated statements regarding the profession.
- Shall not advertise work or accomplishments in a self-laudatory, exaggerated, or unduly conspicuous manner.

### IN RELATIONS WITH EMPLOYERS AND CLIENTS, THE PROFESSIONAL SOIL SCIENTIST

- Shall advise employer or client to engage and cooperate with other experts and specialists whenever the employers or clients interests would be best served by such service.
- Shall not accept compensation from more than one interested party for the same services pertaining to the same work without disclosure and consent of the interested parties.
- Shall act as a faithful agent and protect, to the fullest extent possible, the interest of employer or client insofar as such interest is consistent with professional obligations and ethics.
- Shall inform employers or clients of any business connections, interests or circumstances, which may influence professional judgment or services.
- Shall not disclose, directly or indirectly, information concerning the business affairs of employer or client in any way without consent.
- Shall not, as an employee of a governmental body, receive personal compensation with respect to services provided when representing employer.

IN RELATIONS WITH EACH OTHER, THE  
PROFESSIONAL SOIL SCIENTIST

- Shall refrain from undue criticism of the work of another professional in an attempt to injure the Soil Scientist's reputation.
- Shall freely give credit for work done and to whom the credit is properly due.
- Shall promote high quality standards among Soil Scientists and encourage the ethical dissemination of technical knowledge.
- Shall not compete unfairly with other professional Soil Scientists.
- Shall be candid and forthright in statements and responses to the Society or its representatives in matters pertaining to professional conduct.

IN DUTY TO THE PROFESSION, THE  
PROFESSIONAL SOIL SCIENTIST

- Shall foster good land use and environmental programs through the use of sound soil resource information.
- Shall accept personal responsibility for professional work performed.
- Shall not lend use of name in an enterprise of questionable nature.
- Shall strive to increase the competence and prestige of the Soil Scientist profession.
- Shall endeavor to increase the effectiveness of the profession by broadening education, through association with other professional organizations, and by other appropriate means.
- Shall keep abreast of current changes and developments in the field of Soil Science.
- Shall uphold this Code of Ethics by precept and example and encourage, by counsel and advice, other professional Soil Scientists to do the same.

2015  
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To: Connecticut's Municipal Inland Wetlands Agencies

From: Betsey Wingfield, Bureau Chief   
Bureau of Water Protection and Land Reuse

Dated: December 16, 2015

Re: 2015 Legislation and Regulation Advisory

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In 2015 the Connecticut General Assembly amended the Inland Wetlands and Watercourses Act (IWWA) with the passage of Public Act No. 15-85; and amended the General Statutes of Connecticut section 8-7d, which the IWWA references, with the passage of Public Act No. 15-68.

Public Act No. 15-85 amends subsection (a) of section 22a-43a of the IWWA. This act makes a number of unrelated changes regarding court procedures and personnel. With regards to the IWWA, by law, someone can appeal to Superior Court from a decision of a municipal inland wetlands agency. Public Act No. 15-85 gives the court more options when disposing of these cases on appeal. The law allows the court to set aside the agency's action or modify it if the action constitutes a taking without compensation. For appeals not involving such a taking, the act allows the court, after a hearing, to reverse, affirm, modify, or return the decision in a manner consistent with the evidence in the record.

The provisions of section 22a-43a(a) of the IWWA, as amended by Public Act No. 15-85, took effect October 1, 2015.

Public Act No. 15-68 amends subsection (a) of section 8-7d of the General Statutes of Connecticut. This act limits the steps certain municipal land use commissions must take to identify owners of property abutting a property that is the subject of a public hearing related to a petition, application, request or appeal to the commission. With regards to municipal inland wetlands agencies, in addition to publishing notices of public hearings in a newspaper, the agency *may* notify property owners directly affected by such matter. The additional notice must be mailed to the persons who own land abutting the property that is the subject of the hearing, provided by posting a sign on the land that is the subject of the hearing, or both. By law, for purposes of giving such additional notice, property owners are those persons listed as the owners on the property tax map or the most recently completed grand list. The act specifies that the municipal inland wetlands agency need not conduct a title search or engage in additional methods to identify abutters to whom they give the additional notice.

The provisions of section 8-7d(a), as amended by Public Act No. 15-68, were effective upon passage. The act was signed by the Governor on June 19, 2015.

Complete copies of both Public Act No. 15-85 and of Public Act No. 15-68 are attached for your information. Newly added language is underlined and deleted language is bracketed. If your municipal inland wetlands agency's regulations follow the Department of Energy and Environmental Protection's (DEEP) Inland Wetlands and Watercourses Model Municipal Regulations Fourth Edition, dated May 1, 2006 (as amended), no revisions to your regulations need to occur. However, the DEEP is aware that many municipal inland wetlands agencies have included in their regulations, per the General Statutes of Connecticut section 8-7d(a), the discretionary notice to abutting property owners. If your municipal inland wetlands agency has done this, please be aware that your regulations need to be revised to reflect Public Act No. 15-68.

Finally, as a reminder, the IWWA establishes a specific timeline for the amendment of municipal inland wetlands agency regulations. The timeline begins when an amendment is proposed. The amendment *and* the notice of the public hearing must be submitted to the Commissioner of DEEP at least 35 days before such hearing on the amendment is held. A public hearing on the amendment must be held within 65 days after the receipt of the amendment proposal, and the hearing must finish within 35 days after it started. The municipal inland wetlands agency must take action on the amendment proposal within 65 days after the hearing ends. Further, the agency must submit the final adopted amendment language to the Commissioner of DEEP not later than 10 days after adoption.

The DEEP's Wetlands Management Section (WMS) has created a dedicated email address for the submission of amendment proposals and final adopted amendment language. Please use: [DEEP.Municipal.Inland.Wetland.Reggs@ct.gov](mailto:DEEP.Municipal.Inland.Wetland.Reggs@ct.gov). In the subject line of the email you *must* include: the year, town/city name, proposed/adopted regs (e.g., 2015, Town of \_\_\_\_\_, Proposed Regs). Please submit your documents (e.g., regulations, hearing notice, and cover letter) in PDF format. A brief reply email acknowledging receipt of your regulations will be sent to you.

*Attention*, this email address is solely for the submission of municipal inland wetlands agency regulation amendment proposals and final adopted regulations. Other correspondence or requests submitted through this email address will *not* be answered.

If you are unable to submit your regulations electronically, you may continue to mail a paper copy to: Cheryl A. Chase, Director, DEEP Inland Water Resources Division, 79 Elm Street - 3rd Floor, Hartford, CT 06106.

Should you have any further questions regarding the above changes, please feel free to contact Darcy Winther of the DEEP's WMS at (860) 424-3019.



**Substitute Senate Bill No. 1033**

**Public Act No. 15-85**

**AN ACT CONCERNING COURT OPERATIONS AND THE CLAIM AGAINST THE STATE OF LORI CALVERT.**

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Subsection (a) of section 7-465 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) Any town, city or borough, notwithstanding any inconsistent provision of law, general, special or local, shall pay on behalf of any employee of such municipality, except firemen covered under the provisions of section 7-308, and on behalf of any member from such municipality of a local emergency planning district, appointed pursuant to section 22a-601, all sums which such employee becomes obligated to pay by reason of the liability imposed upon such employee by law for damages awarded for infringement of any person's civil rights or for physical damages to person or property, except as set forth in this section, if the employee, at the time of the occurrence, accident, physical injury or damages complained of, was acting in the performance of his duties and within the scope of his employment, and if such occurrence, accident, physical injury or damage was not the result of any wilful or wanton act of such employee in the discharge of such duty. This section shall not apply to

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physical injury to a person caused by an employee to a fellow employee while both employees are engaged in the scope of their employment for such municipality if the employee suffering such injury or, in the case of his death, his dependent, has a right to benefits or compensation under chapter 568 by reason of such injury. If an employee or, in the case of his death, his dependent, has a right to benefits or compensation under chapter 568 by reason of injury or death caused by the negligence or wrong of a fellow employee while both employees are engaged in the scope of their employment for such municipality, such employee or, in the case of his death, his dependent, shall have no cause of action against such fellow employee to recover damages for such injury or death unless such wrong was wilful and malicious or the action is based on the fellow employee's negligence in the operation of a motor vehicle, as defined in section 14-1. This section shall not apply to libel or slander proceedings brought against any such employee and, in such cases, there is no assumption of liability by any town, city or borough. Any employee of such municipality, although excused from official duty at the time, for the purposes of this section shall be deemed to be acting in the discharge of duty when engaged in the immediate and actual performance of a public duty imposed by law. Such municipality may arrange for and maintain appropriate insurance or may elect to act as a self-insurer to maintain such protection. No action for personal physical injuries or damages to real or personal property shall be maintained against such municipality and employee jointly unless such action is commenced within two years after the cause of action therefor arose and written notice of the intention to commence such action and of the time when and the place where the damages were incurred or sustained has been filed with the clerk of such municipality within six months after such cause of action has accrued. Governmental immunity shall not be a defense in any action brought under this section. In any such action the municipality and the employee may be represented by the same attorney. [If the municipality, at the time such attorney enters his

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appearance, files a statement with the court, which shall not become part of the pleadings or judgment file, that it will pay any final judgment rendered in such action against such employee. No mention of any kind shall be made of such statement by any counsel during the trial of such action.] As used in this section, "employee" includes (1) a member of a town board of education and any teacher, including a student teacher doing practice teaching under the direction of such a teacher, or other person employed by such board, and (2) a member of the local emergency planning committee from such municipality appointed pursuant to section 22a-601. Nothing in this section shall be construed to abrogate the right of any person, board or commission which may accrue under section 10-235.

Sec. 2. Subsection (l) of section 8-8 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(l) The court, after a hearing thereon, may reverse or affirm, wholly or partly, or may [modify or revise the decision appealed from. If a particular board action is required by law, the court, on sustaining the appeal, may render a judgment that modifies the board decision or orders the particular board action] revise, modify or remand the decision from which the appeal was taken in a manner consistent with the evidence in the record before it. In an appeal from an action of a planning commission taken under section 8-29, the court may also reassess any damages or benefits awarded by the commission. Costs shall be allowed against the board if the decision appealed from is reversed, affirmed in part, modified or revised.

Sec. 3. Subsection (a) of section 22a-43a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) The court, after a hearing, may reverse or affirm, wholly or

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partly, or may revise, modify or remand the decision from which the appeal was taken in a manner consistent with the evidence in the record before it. If upon appeal pursuant to section 22a-43, the court finds that the action appealed from constitutes the equivalent of a taking without compensation, [it] the court (1) shall set aside the action or [it] may modify the action so that it does not constitute a taking, [ In both instances the court] and (2) shall remand the order to the inland wetland agency for action not inconsistent with its decision.

Sec. 4. Subsection (a) of section 46b-22 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) Persons authorized to solemnize marriages in this state include (1) all judges and retired judges, either elected or appointed, including federal judges and judges of other states who may legally join persons in marriage in their jurisdictions, (2) family support magistrates, family support referees, state referees and justices of the peace who are appointed in Connecticut, and (3) all ordained or licensed members of the clergy, belonging to this state or any other state, as long as they continue in the work of the ministry. All marriages solemnized according to the forms and usages of any religious denomination in this state, including marriages witnessed by a duly constituted Spiritual Assembly of the Baha'is, are valid. All marriages attempted to be celebrated by any other person are void.

Sec. 5. Section 46b-22a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) All marriages celebrated before June 6, 2014, otherwise valid except that the justice of the peace joining such persons in marriage did not have a valid certificate of qualification, are validated, provided the justice of the peace who joined such persons in marriage represented himself or herself to be a duly qualified justice of the peace

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and such persons reasonably relied upon such representation.

(b) All marriages celebrated before the effective date of this section, otherwise valid except that the family support referee joining such persons in marriage did not have explicit statutory authority to solemnize marriages in this state, are validated, provided the family support referee who joined such persons in marriage represented himself or herself to be a duly qualified family support referee and such persons reasonably relied upon such representation.

Sec. 6. Section 46b-225 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

Any judicial marshal may serve a capias mittimus or a copy thereof made by any photographic, micrographic, electronic imaging or other process, which clearly and accurately copies such original document, provided such judicial marshal or Support Enforcement Services of the Superior Court is in possession of the original document, on any person who is in the custody of the marshal or is in a courthouse where the marshal provides courthouse security if such capias mittimus was issued in a child support matter by (1) a court or a family support magistrate pursuant to subdivision (8) of subsection (a) of section 17b-745 or subparagraph (C) of subdivision (8) of subsection (a) of section 46b-215; or (2) a family support magistrate pursuant to subdivision (1) of subsection (m) of section 46b-231.

Sec. 7. Subsection (a) of section 47a-23a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) If, at the expiration of the three days prescribed in section 47a-23, the lessee or occupant neglects or refuses to quit possession or occupancy of the premises, any commissioner of the Superior Court may issue a writ, summons and complaint which shall be in the form

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and nature of an ordinary writ, summons and complaint in a civil process, but which shall set forth facts justifying a judgment for immediate possession or occupancy of the premises and make a claim for possession or occupancy of the premises. If the claim is for the possession or occupancy of nonresidential property, the writ, summons and complaint shall also make a claim for the forfeiture to the plaintiff of the possessions and personal effects of the defendant in accordance with section 47a-42a. If the plaintiff has properly issued a notice to quit possession to an occupant by alias, if permitted to do so by section 47a-23, and has no further identifying information at the time of service of the writ, summons and complaint, such writ, summons and complaint may also name and serve such occupant or occupants as defendants. In any case in which service is to be made upon an occupant or occupants identified by alias, the complaint shall contain an allegation that the plaintiff does not know the name of such occupant or occupants. Such complaint shall be returnable to the Superior Court. Such complaint may be made returnable six days, inclusive, after service upon the defendant and shall be returned to court at least three days before the return day. Such complaint may be served on any day of the week. [Notwithstanding the provisions of section 52-185 no recognizance shall be required of a complainant appearing pro se.]

Sec. 8. Subsection (a) of section 51-52 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) Clerks shall: (1) Receive the files, processes and documents returnable to their court locations, (2) make records of all proceedings required to be recorded, (3) have the custody of the active files and records of the court, (4) have the custody of the records of the former county court within their districts, (5) have the custody of and keep safely in the appropriate office, or store as provided in subsection (b)

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of this section, as records of the court, all judicial files, records and dockets belonging to or concerning the office of justices of the peace and trial justices, judges of borough, city, town and police courts, the traffic court of Danbury, the Circuit Court and the Court of Common Pleas, or belonging to or concerning such courts, including record books kept by town clerks under the provisions of sections 51-101 and 51-106 of the general statutes, revision of 1958, (6) make and keep dockets of causes in their court locations, (7) issue executions on judgments, (8) collect and receive all fines and forfeitures imposed or decreed by the court, including fines paid after commitment, (9) collect and receive monetary contributions made to the Criminal Injuries Compensation Fund pursuant to section 54-56h, (10) account for and pay or deposit all fees, fines, forfeitures and contributions made to the Criminal Injuries Compensation Fund and the proceeds of judgments of their office in the manner provided by sections 4-32 and 51-56a, [(11) file with the Reporter of Judicial Decisions copies of memoranda of decisions in Superior Court cases, as provided in section 51-215a,] and [(12)] (11) perform all other duties imposed on them by law.

Sec. 9. Section 51-60 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) The judges of the Superior Court shall appoint [one skillful stenographer for each judicial district to be the official court reporter of the Superior Court therein, and shall appoint as many stenographers to be assistant] official court reporters for the court as the judges or an authorized committee thereof determines the business of the court requires.

(b) A person shall not be appointed a court reporter under the provisions of this section who has not passed the entry level examination provided for under section 51-63 and a reporter shall not be placed in the higher court reporter salary classification who has not passed the examination provided for in said section for such higher

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classification, provided each person serving on July 1, 1978, as a court reporter or assistant court reporter in the Court of Common Pleas shall continue to serve in the Superior Court for the balance of the term for which he was appointed. In no event shall the compensation of such person be affected solely as a result of the transfer of jurisdiction provided in section 51-164s.

Sec. 10. Section 51-215a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

[(a) The clerks of the Superior Court shall file with the Reporter of Judicial Decisions copies of memoranda of decisions in Superior Court cases. The reporter shall select therefrom for publication such decisions as he deems will be useful as precedents or will serve the public interest and shall prepare them for publication and index them in substantial conformity with the manner in which decisions of the Supreme Court are prepared and indexed. The decisions selected shall be published by the Commission on Official Legal Publications in the Connecticut Law Journal and in such bound volumes as the Reporter of Judicial Decisions deems necessary.]

[(b)] The clerk of the Appellate Court shall file with the Reporter of Judicial Decisions copies of memoranda of decisions in Appellate Court cases. The reporter shall prepare all of the decisions for publication and index them in substantial conformity with the manner in which decisions of the Supreme Court are prepared and indexed. The decisions shall be published by the Commission on Official Legal Publications in the Connecticut Law Journal and in bound volumes.

Sec. 11. Subsection (b) of section 51-216a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(b) The commission shall acquire, publish, distribute and maintain

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for the benefit of the state a sufficient supply of the official legal publications, which shall consist of: (1) The Connecticut Reports consisting of the reports of cases determined by the Supreme Court as prepared for publication by the Reporter of Judicial Decisions, (2) reports of cases determined by the Appellate Court as prepared for publication by the Reporter of Judicial Decisions, (3) the Connecticut Law Journal, (4) the Connecticut Practice Book and cumulative supplements thereto, [(5) the digests compiled by or under the supervision of the Reporter of Judicial Decisions pursuant to section 51-215b, and such other volumes of law reports and digests as the Reporter of Judicial Decisions deems necessary, (6) such decisions of the Superior Court as the Reporter of Judicial Decisions selects for publication pursuant to section 51-215a,] and [(7)] (5) such additional publications pertaining to the state Judicial Branch, the Supreme Court, the Appellate Court, the Superior Court and the practice of law as may be assigned to the commission. The commission may publish, maintain and distribute the official legal publications in available alternative formats. An alternative format includes an electronic format and may be the sole method for the publication, maintenance and distribution of all official legal publications, all archived official legal protections and all volumes of the Connecticut Reports, excluding the most recent one hundred volumes.

Sec. 12. Subdivision (2) of subsection (b) of section 51-216b of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(2) Bills contracted and expenses incurred by the commission for the purposes specified in this section and sections 51-215a, as amended by this act, [51-215b,] 51-216a, as amended by this act, and 51-216c shall be paid from moneys appropriated from the General Fund.

Sec. 13. Section 52-74 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

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Any bond entered into in accordance with the laws of any other state of the United States, conditioned for the proper performance by any person or persons of the duties of executor, administrator, guardian or trustee, to the acceptance of the court having jurisdiction, may be enforced, in case of breach, against any obligors therein, resident within this state, by an action in the name of the person or persons who would be entitled to sue thereon in the proper courts of such other state. All such suits, in respect to the security for the costs by endorsement, and the effect of the judgments rendered in the same, shall be governed by the provisions concerning actions on probate bonds contained in [sections 52-117 and 52-190] section 52-117.

Sec. 14. Section 52-185 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

[(a) If the plaintiff in any civil action is not an inhabitant of this state, or if it does not appear to the authority signing the process that the plaintiff is able to pay the costs of the action should judgment be rendered against him, the plaintiff shall enter into a recognizance to the adverse party with a financially responsible inhabitant of this state as surety, or a financially responsible inhabitant of this state shall enter into a recognizance to the adverse party, that the plaintiff shall prosecute his action to effect and answer all costs for which judgment is rendered against him. The recognizance shall not be discharged by any amendment or alteration of the process between the time of signing and of serving it.]

(a) No bond or recognizance for prosecution is required from a party in any civil action unless the judicial authority, upon motion and for good cause shown, finds that a party is not able to pay the costs of the action and orders that the party give a sufficient bond or enter into a recognizance to an adverse party with a financially responsible person to pay taxable costs. In determining the sufficiency of the bond or recognizance, the judicial authority shall consider only the taxable

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costs which the party may be responsible for under section 52-257, except that in no event shall the judicial authority consider the fees or charges of expert witnesses notwithstanding that such fees or charges may be allowable under said section.

(b) The recognizance may be taken in the following form:

You, C.S., as principal, and E.C., as surety, acknowledge yourselves jointly and severally bound to J.L., in a recognizance (or, as the case may be, You, E.C., acknowledge yourself bound to J.L., in a recognizance) of .... dollars, that C.S. shall prosecute the action which he has now commenced against J.L. at the Superior court to be held at H. in and for the judicial district of H., on the .... Tuesday of ...., 20.. to full effect, and that he shall pay any costs for which judgment may be rendered against him thereon.

Taken and acknowledged at H. on the .... day of ...., 20.., before me, J.W., Commissioner of the Superior Court.

(c) If a bond or recognizance is required on any writ of summons or attachment, it may be noted in the writ in the following manner:

E.C. of .... is recognized in \$.... to prosecute, etc. (or words to that effect).

(d) [If there has been a failure to comply with the provisions of this section, or if the authority signing a writ has failed to certify in accordance with any statute or rule that he has personal knowledge as to the financial responsibility of the plaintiff and deems it sufficient, the validity of the writ and service shall not be affected unless the failure is made a ground of a plea in abatement. If such plea in abatement is filed and sustained or if the plaintiff voluntarily elects to cure the defect by filing a bond, the court shall direct the plaintiff to file a bond to prosecute in the usual amount. Upon the filing of the bond, the case shall proceed in the same manner and to the same effect

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as to rights of attachment and in all other respects as though the failure had not occurred. The court may, in its discretion, order, as a condition to the acceptance of the bond, that the plaintiff pay to the defendant costs not to exceed the costs in full to the date of the order.] Any party failing to comply with an order of the judicial authority to give sufficient bond or recognizance may be nonsuited or defaulted.

Sec. 15. Subsection (a) of section 52-259 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) There shall be paid to the clerks for entering each appeal or writ of error to the Supreme Court, or entering each appeal to the Appellate Court, as the case may be, two hundred fifty dollars, and for each civil cause in the Superior Court, three hundred fifty dollars, except (1) two hundred twenty-five dollars for entering each case in the Superior Court in which the sole claim for relief is damages and the amount, legal interest or property in demand is less than two thousand five hundred dollars; (2) one hundred seventy-five dollars for summary process and landlord and tenant actions; and (3) there shall be no entry fee for making an application to the Superior Court for relief under section 46b-15 or 46b-16a, or for making an application to modify or extend an order issued pursuant to section 46b-15 or 46b-16a. If the amount, legal interest or property in demand by the plaintiff is alleged to be less than two thousand five hundred dollars, a new entry fee of seventy-five dollars shall be charged if the plaintiff amends his or her complaint to state that such demand is not less than two thousand five hundred dollars.

Sec. 16. Subsection (a) of section 52-259c of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) There shall be paid to the clerk of the Superior Court upon the

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filing of any motion to open, set aside, modify or extend any civil judgment rendered in Superior Court a fee of seventy-five dollars for any housing matter, a fee of seventy-five dollars for any small claims matter, a fee of one hundred seventy-five dollars for any post-judgment motion to modify any judgment in a family relations matter, as defined in section 46b-1, and a fee of one hundred twenty-five dollars for any other matter, except no fee shall be paid upon the filing of any motion to open, set aside, modify or extend judgments in juvenile matters or orders issued pursuant to section 46b-15 or 46b-16a or upon the filing of any motion pursuant to subsection (b) of section 46b-63. Such fee may be waived by the court.

Sec. 17. Section 53a-223b of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) A person is guilty of criminal violation of a restraining order when (1) (A) a restraining order has been issued against such person pursuant to section 46b-15, or (B) a foreign order of protection, as defined in section 46b-15a, has been issued against such person in a case involving the use, attempted use or threatened use of physical force against another, and (2) such person, having knowledge of the terms of the order, (A) does not stay away from a person or place in violation of the order, (B) contacts a person in violation of the order, (C) imposes any restraint upon the person or liberty of a person in violation of the order, or (D) threatens, harasses, assaults, molests, sexually assaults or attacks a person in violation of the order.

(b) No person who is listed as a protected person in such restraining order or foreign order of protection may be criminally liable for (1) soliciting, requesting, commanding, importuning or intentionally aiding in the violation of the restraining order or foreign order of protection pursuant to subsection (a) of section 53a-8, or (2) conspiracy to violate such restraining order or foreign order of protection pursuant to section 53a-48.

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(c) No person who is listed as a respondent in a restraining order issued pursuant to section 46b-15 or a foreign order of protection issued pursuant to section 46b-15a and against whom there is an order of no contact with the protected party or parties may be criminally liable for a violation of such order if such person causes a document filed in a family relations matter, as defined in section 46b-1, to be served on the protected party or parties in accordance with the law by mail or through a third party who is authorized by statute to serve process.

[[c]] (d) (1) Except as provided in subdivision (2) of this subsection, criminal violation of a restraining order is a class D felony.

(2) Criminal violation of a restraining order is a class C felony if the offense is a violation of subparagraph (C) or (D) of subdivision (2) of subsection (a) of this section.

Sec. 18. Section 53a-223c of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) A person is guilty of criminal violation of a civil protection order when (1) a civil protection order has been issued against such person pursuant to section 46b-16a, and (2) such person, having knowledge of the terms of the order, violates such order.

(b) No person who is listed as a respondent in a civil protection order issued pursuant to section 46b-16a may be criminally liable for a violation of such order if such person causes a legal document to be served on the protected person by mail or through a third party in accordance with the law. For purposes of this subsection, "legal document" includes, but is not limited to, a notice of appearance or any other application, petition, or motion filed in good faith by such person in connection with any pending court matter, or in any court matter that may be brought subsequently.

**Substitute Senate Bill No. 1033**

[(b)] (c) Criminal violation of a civil protection order is a class D felony.

Sec. 19. Subsection (b) of section 54-56e of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(b) The court may, in its discretion, invoke such program on motion of the defendant or on motion of a state's attorney or prosecuting attorney with respect to a defendant (1) who, the court believes, will probably not offend in the future, (2) who has no previous record of conviction of a crime or of a violation of section 14-196, subsection (c) of section 14-215, section 14-222a, subsection (a) or subdivision (1) of subsection (b) of section 14-224 or section 14-227a, and (3) who states under oath, in open court or before any person designated by the clerk and duly authorized to administer oaths, under the penalties of perjury, (A) that the defendant has never had such program invoked on the defendant's behalf or that the defendant was charged with a misdemeanor or a motor vehicle violation for which a term of imprisonment of one year or less may be imposed and ten or more years have passed since the date that any charge or charges for which the program was invoked on the defendant's behalf were dismissed by the court, or (B) with respect to a defendant who is a veteran, that the defendant has not had such program invoked in the defendant's behalf more than once previously, provided the defendant shall agree thereto and provided notice has been given by the defendant, on a form [approved by rule of court] prescribed by the Office of the Chief Court Administrator, to the victim or victims of such crime or motor vehicle violation, if any, by registered or certified mail and such victim or victims have an opportunity to be heard thereon. Any defendant who makes application for participation in such program shall pay to the court an application fee of thirty-five dollars. No defendant shall be allowed to participate in the pretrial program for accelerated

**Substitute Senate Bill No. 1033**

rehabilitation more than two times. For the purposes of this section, "veteran" means any person who was discharged or released under conditions other than dishonorable from active service in the armed forces as defined in section 27-103.

Sec. 20. Subdivision (1) of subsection (a) of section 54-56g of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(a) (1) There shall be a pretrial alcohol education program for persons charged with a violation of section 14-227a, 14-227g, 15-132a, 15-133, 15-140l or 15-140n. Upon application by any such person for participation in such program and payment to the court of an application fee of one hundred dollars and a nonrefundable evaluation fee of one hundred dollars, the court shall, but only as to the public, order the court file sealed, provided such person states under oath, in open court or before any person designated by the clerk and duly authorized to administer oaths, under penalties of perjury that: (A) If such person is charged with a violation of section 14-227a, such person has not had such program invoked in such person's behalf within the preceding ten years for a violation of section 14-227a, (B) if such person is charged with a violation of section 14-227g, such person has never had such program invoked in such person's behalf for a violation of section 14-227a or 14-227g, (C) such person has not been convicted of a violation of section 53a-56b or 53a-60d, a violation of subsection (a) of section 14-227a before, on or after October 1, 1981, or a violation of subdivision (1) or (2) of subsection (a) of section 14-227a on or after October 1, 1985, (D) such person has not been convicted in any other state at any time of an offense the essential elements of which are substantially the same as section 53a-56b or 53a-60d or subdivision (1) or (2) of subsection (a) of section 14-227a, and (E) notice has been given by such person, by registered or certified mail on a form [approved by rule of court] prescribed by the Office of the Chief Court

***Substitute Senate Bill No. 1033***

Administrator, to each victim who sustained a serious physical injury, as defined in section 53a-3, which was caused by such person's alleged violation, that such person has applied to participate in the pretrial alcohol education program and that such victim has an opportunity to be heard by the court on the application.

Sec. 21. Subsection (c) of section 54-56l of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(c) Upon application by any such person for participation in such program, the court shall, but only as to the public, order the court file sealed, provided such person states under oath, in open court or before any person designated by the clerk and duly authorized to administer oaths, under penalties of perjury, that such person has not had such program invoked in such person's behalf more than once. Court personnel shall provide notice, on a form [approved by rule of court] prescribed by the Office of the Chief Court Administrator, to any victim of such crime or motor vehicle violation, by registered or certified mail, that such person has applied to participate in the program and that such victim has an opportunity to be heard by the court on the matter.

Sec. 22. Subsection (e) of section 54-208 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2015*):

(e) In determining the amount of compensation to be allowed, the Office of Victim Services or, on review, a victim compensation commissioner shall take into consideration amounts that the applicant has received or is eligible to receive from any other source or sources, including, but not limited to, payments from state and municipal agencies, health insurance benefits, and workers' compensation awards, as a result of the incident or offense giving rise to the

**Substitute Senate Bill No. 1033**

application. For purposes of this section, life insurance benefits received by the applicant shall not be taken into consideration by the Office of Victim Services or a victim compensation commissioner.

Sec. 23. Section 2 of number 257 of the special acts of 1917 is amended to read as follows (*Effective from passage*):

The clerk of [said court] the superior court in the judicial district of Litchfield, or his successor in office, is directed to hold [said fund] the escheated property formerly known as the Salmon Brownson Fund and to act as trustee of the same and on July 1, 1917, to pay the interest thereon which shall have accrued to July 1, 1917, to the treasurer of the Warren Cemetery Association, a domestic corporation situated in the town of Warren in said Litchfield county, and thereafter to pay to said cemetery association, during the first week in January and July, annually, the interest which shall have accrued from said fund. On or before October 1, 2015, the clerk of said court shall pay to the treasurer of said cemetery association the entire balance of the fund and shall close the account.

Sec. 24. Section 4 of number 257 of the special acts of 1917 is amended to read as follows (*Effective from passage*):

The Warren Cemetery Association shall use the [interest] funds which it may receive from said trustee for the care of the monuments and graves of Salmon Brownson and wife, and members of his family, deceased, late of said town of Warren, in the Warren cemetery, and any unexpended portion of the money so received by said association may be used by it for the care of the graves of persons formerly members of the Warren Methodist Episcopal church and their descendants and any unexpended portion of the income of said fund may be expended for the general purposes of said cemetery association, but in case of the organization of a Methodist Episcopal church society in said town of Warren which shall conduct services

***Substitute Senate Bill No. 1033***

regularly, and at least one such service during each month in said town for a period of six months in some suitable and convenient place to accommodate the people of said town of Warren, said trustee shall pay the income from said fund semi-annually at the expiration of said six months' period to the treasurer of such church society, and shall continue to make such payments semi-annually to such church society so long as regular services shall be so conducted in said town, and upon the discontinuance of such regular services, the income from said fund shall again revert and be paid to said cemetery association for the purposes stated in [this act] number 257 of the special acts of 1917.

Sec. 25. (*Effective from passage*) (a) Notwithstanding the failure to file a proper notice of a claim against the state with the clerk of the Office of the Claims Commissioner, within the time limitations specified by subsection (a) of section 4-148 of the general statutes, Lori Calvert is authorized pursuant to the provisions of subsection (b) of section 4-148 of the general statutes to present her claim against the state to the Claims Commissioner. The General Assembly finds that there is a public purpose served by encouraging accountable state government through the full adjudication of cases involving persons who claim to have been injured by the conduct of state actors. The General Assembly further finds it just and equitable that the time limitations provided for in subsection (a) of section 4-148 of the general statutes be tolled in a case such as this, involving a claimant who commenced a civil action in the superior court for the judicial district of Hartford in December 2010, thereby providing notice to the state of her claim within the statute of limitations for injuries to her person that are alleged to have occurred in January 2010. The General Assembly deems such authorization to be just and equitable and finds that such authorization is supported by compelling equitable circumstances and would serve a public purpose. Such claim shall be presented to the Claims Commissioner not later than one year after the effective date of this section.

***Substitute Senate Bill No. 1033***

(b) The state shall be barred from setting up the failure to comply with the provisions of sections 4-147 and 4-148 of the general statutes, from denying that notice of the claim was properly and timely given pursuant to sections 4-147 and 4-148 of the general statutes and from setting up the fact that the claim had once been considered by the Claims Commissioner, by the General Assembly or in a judicial proceeding as defenses to such claim.

Sec. 26. Sections 1 and 3 of number 257 of the special acts of 1917 are repealed. (*Effective from passage*)

Sec. 27. Sections 51-215b, 52-186, 52-187, 52-188 and 52-190 of the general statutes are repealed. (*Effective October 1, 2015*)

Approved June 24, 2015



*Substitute House Bill No. 6942*

***Public Act No. 15-68***

***AN ACT VALIDATING THE ACTION OF A MUNICIPAL ASSESSOR,  
EXTENDING THE FILING DEADLINE FOR CERTAIN PROPERTY  
TAX EXEMPTIONS AND CONCERNING NOTICE REQUIREMENTS  
FOR ZONING APPLICANTS.***

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (*Effective from passage*) The grand list for the assessment year commencing October 1, 2014, as signed by the assessor of the town of Naugatuck on March 31, 2015, is hereby validated notwithstanding the assessor's failure to publish or lodge for public inspection such grand list or abstract related thereto within the time period specified in section 12-55 of the general statutes or any extension thereof granted by the chief executive officer pursuant to section 12-117 of the general statutes. Notwithstanding the provisions of sections 12-110, 12-111 and 12-117 of the general statutes, the Naugatuck board of assessment appeals may hold a hearing with respect to the assessment of any property included on said grand list or grand list abstract, provided a written request for such hearing is submitted to said board not later than thirty days after the effective date of this section. Said board shall send notification to the person having filed such request of the time and date of an appeal hearing at least seven calendar days preceding the hearing date, but not later than sixty days after the effective date of this section. Such hearings may be

***Substitute House Bill No. 6942***

held in the months of May, June, July and August of 2015 and said board shall complete its duties with respect to such appeals not later than August 31, 2015. If said board elects not to conduct a hearing for any commercial, industrial, utility or apartment property with an assessed value greater than one million dollars, it shall notify the taxpayer of such decision not later than sixty days after the effective date of this section. All provisions of sections 12-111 and 12-117 of the general statutes, other than the extension of the filing and notification dates as provided in this section, shall be applicable to such appeals or denials of appeals.

Sec. 2. Subsection (a) of section 8-7d of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) In all matters wherein a formal petition, application, request or appeal must be submitted to a zoning commission, planning and zoning commission or zoning board of appeals under this chapter, a planning commission under chapter 126 or an inland wetlands agency under chapter 440 or an aquifer protection agency under chapter 446i and a hearing is required or otherwise held on such petition, application, request or appeal, such hearing shall commence within sixty-five days after receipt of such petition, application, request or appeal and shall be completed within thirty-five days after such hearing commences, unless a shorter period of time is required under this chapter, chapter 126, chapter 440 or chapter 446i. Notice of the hearing shall be published in a newspaper having a general circulation in such municipality where the land that is the subject of the hearing is located at least twice, at intervals of not less than two days, the first not more than fifteen days or less than ten days and the last not less than two days before the date set for the hearing. In addition to such notice, such commission, board or agency may, by regulation, provide for additional notice. Such regulations shall include provisions that the

**Substitute House Bill No. 6942**

notice be mailed to persons who own land that is adjacent to the land that is the subject of the hearing or be provided by posting a sign on the land that is the subject of the hearing, or both. For purposes of such additional notice, (1) proof of mailing shall be evidenced by a certificate of mailing, [and] (2) the person who owns land shall be the owner indicated on the property tax map or on the last-completed grand list as of the date such notice is mailed, and (3) a title search or any other additional method of identifying persons who own land that is adjacent to the land that is the subject of the hearing shall not be required. All applications and maps and documents relating thereto shall be open for public inspection. At such hearing, any person or persons may appear and be heard and may be represented by agent or by attorney. All decisions on such matters shall be rendered not later than sixty-five days after completion of such hearing, unless a shorter period of time is required under this chapter, chapter 126, chapter 440 or chapter 446i. The petitioner or applicant may consent to one or more extensions of any period specified in this subsection, provided the total extension of all such periods shall not be for longer than sixty-five days, or may withdraw such petition, application, request or appeal.

Sec. 3. (*Effective from passage*) Notwithstanding the provisions of subparagraph (B) of subdivision (72) of section 12-81 of the general statutes, any person otherwise eligible for a 2014 grand list exemption pursuant to said subdivision (72) in the town of Durham, except that such person failed to file the required exemption application within the time period prescribed, shall be regarded as having filed said application in a timely manner if such person files said application not later than thirty days after the effective date of this section, and pays the late filing fee pursuant to section 12-81k of the general statutes. Upon confirmation of the receipt of such fee and verification of the exemption eligibility of the machinery and equipment included in such application, the assessor shall approve the exemption for such property. If taxes have been paid on the property for which such

**Substitute House Bill No. 6942**

exemption is approved, the town of Durham shall reimburse such person in an amount equal to the amount by which such taxes exceed the taxes payable if the application had been filed in a timely manner.

Sec. 4. (*Effective from passage*) Notwithstanding the provisions of subparagraph (A) of subdivision (7) of section 12-81 of the general statutes and section 12-87a of the general statutes, any person otherwise eligible for a 2013 grand list exemption for all or part of the assessment year pursuant to said subdivision (7) in the town of North Branford, except that such person failed to file the required statement within the time period prescribed, shall be regarded as having filed such statement in a timely manner if such person files such statement not later than thirty days after the effective date of this section and pays the late filing fee pursuant to section 12-87a of the general statutes. Upon confirmation of the receipt of such fee and verification of the exemption eligibility of such property, the assessor shall approve the exemption for such property. If taxes, interest or penalties have been paid on the property for which such exemption is approved, the town of North Branford shall reimburse such person in an amount equal to the amount by which such taxes, interest and penalties exceed any taxes payable if the statement had been filed in a timely manner.

Sec. 5. (*Effective from passage*) Notwithstanding the provisions of subparagraph (B) of subdivision (72) of section 12-81 of the general statutes, any person otherwise eligible for a 2014 grand list exemption pursuant to said subdivision (72) in the town of Windsor, except that such person failed to file the required exemption application within the time period prescribed, shall be regarded as having filed said application in a timely manner if such person files said application not later than thirty days after the effective date of this section, and pays the late filing fee pursuant to section 12-81k of the general statutes. Upon confirmation of the receipt of such fee and verification of the exemption eligibility of the machinery and equipment included in such

***Substitute House Bill No. 6942***

application, the assessor shall approve the exemption for such property. If taxes have been paid on the property for which such exemption is approved, the town of Windsor shall reimburse such person in an amount equal to the amount by which such taxes exceed the taxes payable if the application had been filed in a timely manner.

Approved June 19, 2015

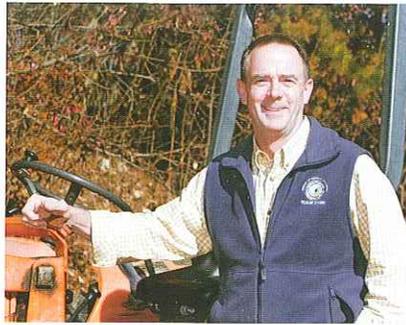
November/December 2015

# Connecticut Wildlife

CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION  
BUREAU OF NATURAL RESOURCES  
DIVISIONS OF WILDLIFE, INLAND & MARINE FISHERIES, AND FORESTRY



# From the Director's Desk



Soon after the release of the September/October 2015 issue of Connecticut Wildlife, I received a call from one of our long-time readers, Mr. Norman Coulter of Suffield, Connecticut. Mr. Coulter called to chat about the cover story on New England cottontails. It was a wonderful conversation, one I hope we will build on.

Although we grew up a generation and half a country apart (he, a born and bred Yankee, me a son of the Midwest), we had more in common than not. Turns out, we both grew up on dairy farms, driving tractors, baling hay, running combines, and raising registered Holsteins. To keep those memories fresh, I still proudly display various plaques won with prized heifers shown at county and state "black and white shows," named for the distinctive coloration depicted on the sides of every Ben and Jerry's ice cream truck. Through these experiences, Mr. Coulter and I developed, however independently, a love for both the land and the wildlife with whom we shared space.

We also shared a deep affection for hunting dogs. Mr. Coulter described a rich history of working with beagles and building and nurturing friendships through a local beagle field trail club. For me, my first family dog was a beagle named "Flip." Where that name came from, I do not recall. What I do remember is being 10 years old and following Flip as he made excited clover-leafed patterns in front of dad, my brother, and me through the overgrown pasture on the next farm over. Mr. Coulter lamented that his days running beagles are past, while the memories remain fresh. My beagle days are past too and are now consumed with a young German shorthaired pointer puppy.

Mr. Coulter and I also shared stories of building box traps baited with apples. The traps and apples were great for live-trapping rabbits; Mr. Coulter's for propagation, while our's were simply to rid the beasts from the family garden. The greatest difference, besides the outcome for the rabbits, was Mr. Coulter's live-traps were sided with wood while my dad's and mine were made of chicken wire salvaged from a coop destroyed by the tornado that blew through the valley the previous summer.

There is really not a lot of point to this story beyond an acknowledgement that although our experiences may be personal, they are of a kind that bring us not only closer to the wildlife we love but closer to one another in ways we would otherwise never imagine. So, thank you Mr. Coulter for calling. You are the friend I did not know I had.

Rick Jacobson, DEEP Wildlife Division Director

## Cover:

The northern cardinal is a colorful and favorite backyard bird at feeding stations during winter.

Photo courtesy of Paul J. Fusco

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



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# Mapping Changes in Coastal Fisheries Abundance

Written by Penny Howell, DEEP Marine Fisheries Division; photo provided by DEEP Marine Fisheries Division

Over the last few years, DEEP Marine Fisheries Division staff have found that showing a picture rather than a page of numbers is often a better way to explain data describing marine resources that many people never get to see in the depths of Long Island Sound or the Atlantic Ocean. To meet this need, Deb Pacileo and her part-time assistants have used the Geographic Information System (GIS) ArcMap software to analyze and map marine environmental and fisheries related information. These maps, some of which are interactive and display multiple layers of data, have been generated to meet the needs of fisheries stock assessments, habitat quantification, and environmental sensitivity analyses.

One recent job answered questions posed by biologists from Virginia to Massachusetts who needed to understand the status of black sea bass, a favorite of mid-Atlantic commercial and recreational inter-

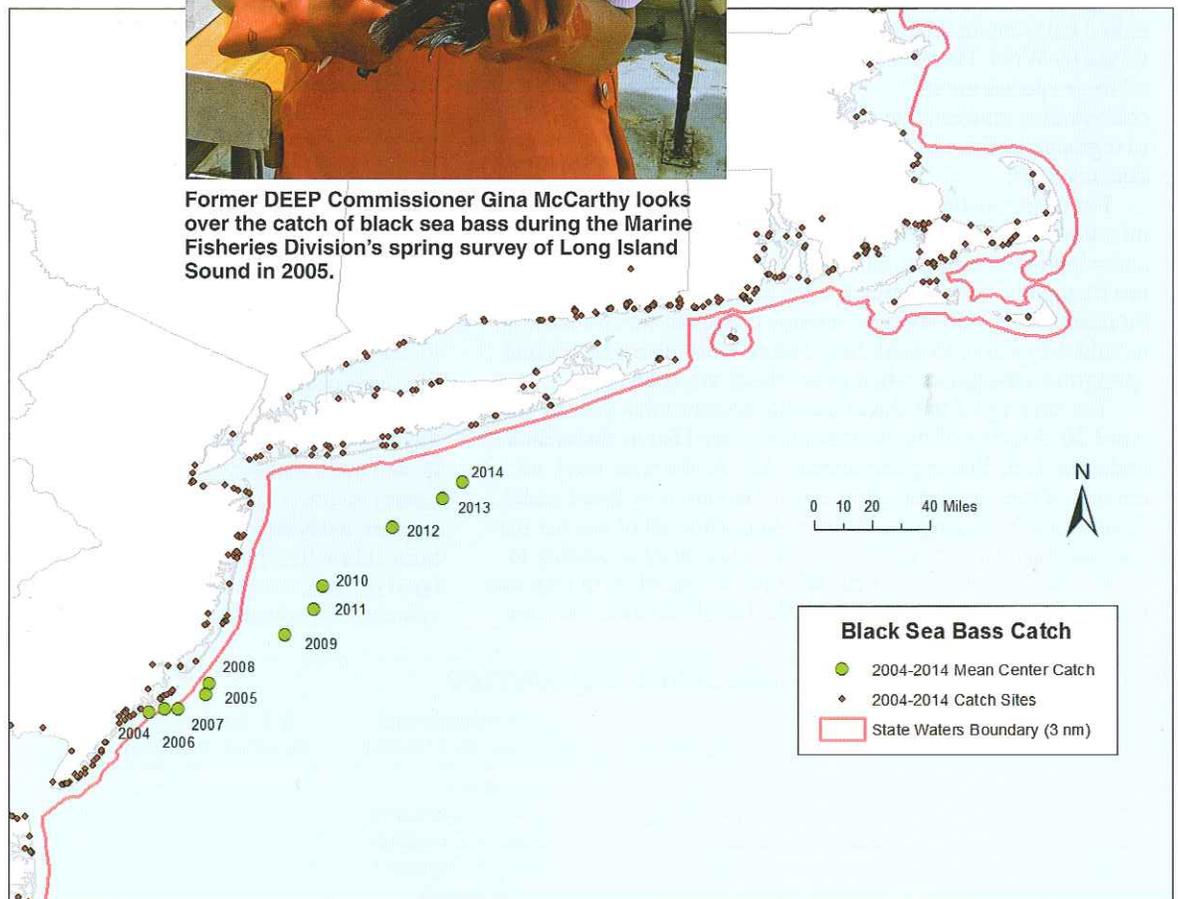
ests, and a growing fishery in the New England states. Biologists from the southern states had recreational catch data that showed black sea bass declining in abundance, while biologists from more northern states were seeing great increases in their angler catch data. To make sense of this discrepancy, standardized recreational catch rates from all sites were averaged by their latitude and longitude for each year from 2004 to 2014 using zonal statistics in GIS. DEEP biologists determined that the annual center of the coastwide catch has moved northward each year from New Jersey toward the southern coast of Long Island Sound.

The center of the catch distribution moved northward about 115 miles over the time series. This analysis quantified the shift, or possible expansion, in the range of black sea bass along the coast which the biologists had only suspected occurred. The coastwide stock can now be assessed more accurately by comparing abundance with harvest through time, as well as geographically.

Long Island Sound is one of the lucky areas where the abundance of black sea bass has increased dramatically in the last decade. Abundance of this species in 2014 was 10 times greater than the long-term mean in the Marine Fisheries Division's spring research trawl survey. Newly hatched juveniles also are now commonly captured in the Division's beach seine survey, indicating that the list of species using Long Island Sound as prime nursery and feeding grounds is increasing.



Former DEEP Commissioner Gina McCarthy looks over the catch of black sea bass during the Marine Fisheries Division's spring survey of Long Island Sound in 2005.



This map illustrates the movement of the center of the annual recreational catch of black sea bass along the northeastern coast of the United States, denoted by bright green circles. The northward change in latitude is most significant. Averaging latitude and longitude places the symbols offshore even though all the data reflect near-shore catches (black dots).

# Listening to Bats – a Glimpse into the Night

Written by Kate Moran, DEEP Wildlife Division

Ever since the arrival of white-nose syndrome (WNS), bats have been making headlines. WNS, an infectious disease of cave-roosting bats, was first discovered in 2006 in upstate New York. It made its debut in Connecticut in 2008 and, by 2012, the U.S. Fish and Wildlife Service estimated that nearly six million bats had perished in the Northeast due to the deadly fungus called *Pseudogymonascus destructans*.

Not all bat species are affected by WNS, however. For example, the three migratory, tree-roosting bat species in Connecticut (eastern red bat, hoary bat, and silver-haired bat) remain unaffected by WNS. However, all three species are of conservation concern due to regional declines (not due to WNS).

For cave-roosting bats, however, WNS is deadly. The fungal infection, which is evident as a white growth on the snouts, ears, and wing membranes of hibernating bats, causes them to awaken too frequently, which depletes their fat reserves. With depleted fat reserves, bats do not have enough energy to survive the winter and they starve to death long before their otherwise normal springtime emergence when insect foods are abundant.

The severity of this threat was underscored this year by the April 2015 listing of the northern long-eared bat as threatened under the U.S. Endangered Species Act. At the state level, all but one of our native bats (big brown bat) are now listed under Connecticut's Endangered Species Act, while all of our bat species are considered of greatest conservation need according to the newly-revised Connecticut Wildlife Action Plan. In response to the crisis precipitated by WNS, the DEEP Wildlife Division



DEEP Wildlife Division biologist Kate Moran shows off the truck and special equipment she uses to conduct acoustic surveys for bats. Since 2011, the Division has been monitoring bats along nine 20-mile transects located throughout Connecticut.

has stepped up its monitoring efforts and adopted a hands-off approach of listening to bats through the use of high-frequency bat detectors. This rather intriguing approach exploits bats' remarkable adaptation called echolocation.

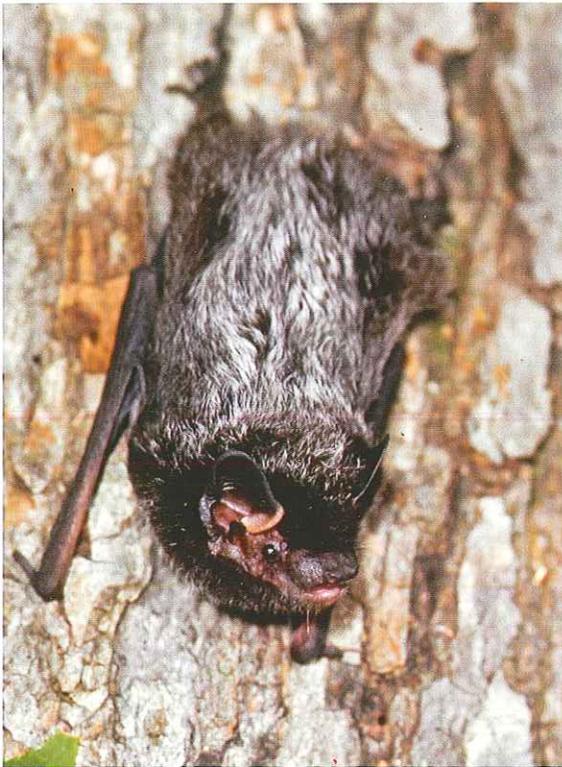
Echolocation is a form of sonar that allows bats to navigate in darkness while foraging for night-flying insects. By producing rapid pulses of sound and listening to the returning echoes, bats create a mental picture of their surroundings that enables them to capture insects on-the-fly. Biologists are able to record these high-frequency vocalizations (above the human auditory range) by using special bat detecting equipment. The recordings are then analyzed with sophisticated software that sorts out the noise, classifies the bat calls, and generates an estimated likelihood of presence for each species. Biologists also are able to visualize the sounds in a graphical representation and evaluate

the various call characteristics. Besides being incredibly interesting, the advantage of acoustic techniques is that it is a non-invasive way of gathering information about all of Connecticut's bats over a broad geographic area.

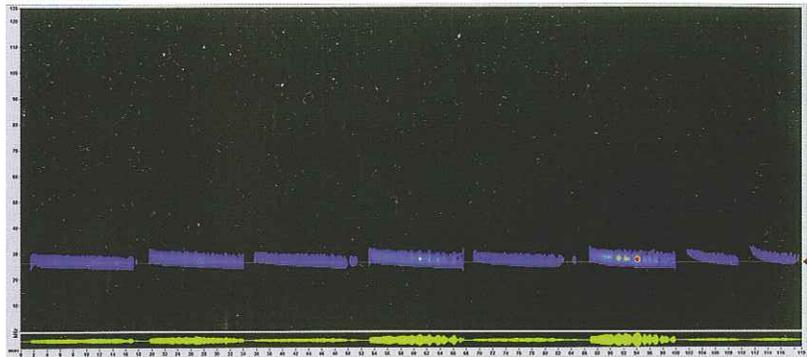
Since 2011, the Wildlife Division has been monitoring nine 20-mile

## Conservation Status of Connecticut's Bat Species

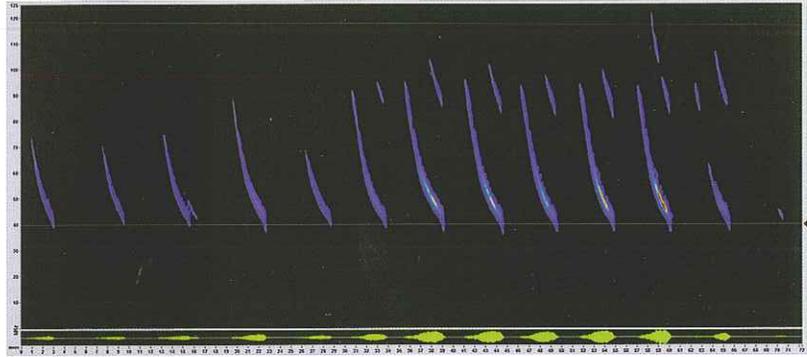
Common Name	Scientific Name	CT Endangered Species Act Status	U.S. Endangered Species Act Status
Big brown bat	<i>Eptesicus fuscus</i>	Not listed	-
Silver-haired bat	<i>Lasonycteris noctivagans</i>	Special Concern	-
Red bat	<i>Lasiurus borealis</i>	Special Concern	-
Hoary bat	<i>Lasiurus cinereus</i>	Special Concern	-
Eastern small-footed bat	<i>Myotis leibii</i>	Endangered	-
Little brown bat	<i>Myotis lucifugus</i>	Endangered	-
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered	Threatened
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered
Tri-colored bat	<i>Perimyotis subflavus</i>	Endangered	-



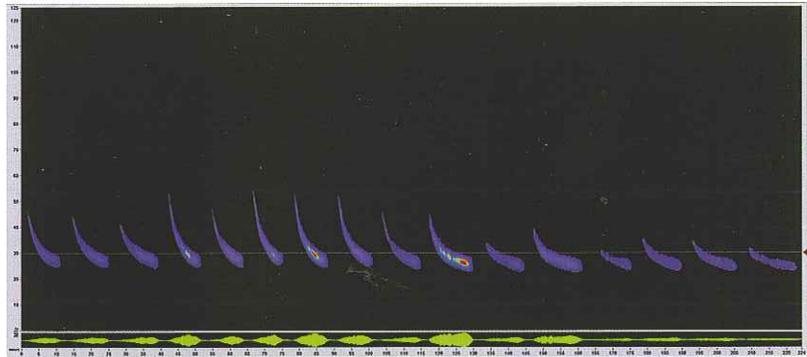
Silver-haired bat, a tree-roosting species.



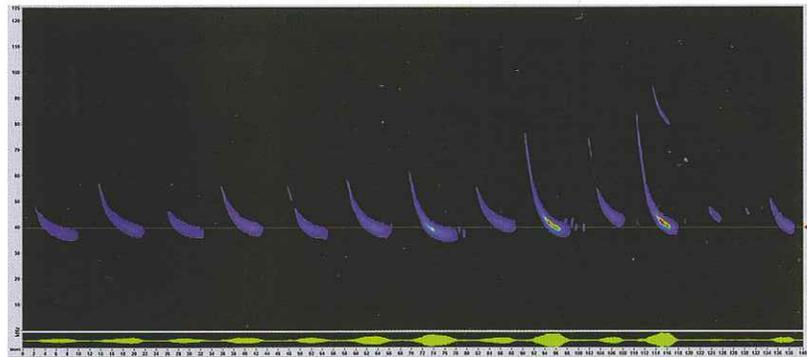
Silver-haired bat – Long flat pulses at approximately 26 kilohertz (kHz) are distinctive for this species.



Little brown bat – Notice the downward “toe” at the bottom of each pulse. This is generally characteristic of the genus *Myotis*.



Big brown bat – Characteristic frequency (i.e., the frequency of the call at its lowest slope) generally ranges between 27 and 30 kHz.



Red bat – This species is distinguished by a bouncing pattern of pulses centered around 40 kHz.

transects located throughout Connecticut. Researchers conduct the surveys after sunset while slowly driving a predetermined route in a vehicle equipped with a bat detector mounted to the rooftop. This year, the Division procured additional equipment designed for days-long stationary deployments that will help in conducting site-specific bat inventories.

Acoustic monitoring methods have greatly expanded our knowledge of bats in Connecticut. Never before have we had the volumes of data on such a broad geographic scale. Using acoustic technology to monitor bats has provided important insights into which species may be present, their relative activity level, and habitat use, as well as distribution and temporal patterns. All of this information is critical in making the best conservation and management decisions, especially in light of the threats posed by WNS, not to mention the already-present challenges bats face, such as persecution, habitat loss, and disturbance to roosting sites.

So far, there is no strong evidence of a comeback. But, if there is a bright side to the WNS story, it is that people have increasingly come to appreciate the importance of bats in maintaining healthy ecosystems. Bats also provide the valuable service of controlling insect populations, including many forest and agricultural pests. The more people learn about bats, the more bats will be appreciated for the amazing mammals they are. There are many ways you can help bats: 1) protect stream and wetland habitats in your community; 2) report bat observations, especially summer colonies, to [deepbatprogram@ct.gov](mailto:deepbatprogram@ct.gov); and 3) spread the word that bats are good for the environment. More information about how you can help bats can be found at [www.whitenosesyndrome.org](http://www.whitenosesyndrome.org).

This research has been funded by State Wildlife Grants and the Income Tax Check-off Fund, and is fueled by the many volunteers who have donated their valuable time toward bat conservation.



# Burlington State Fish Hatchery: 95 Generations of Trout and Counting

Written by Mike Beauchene, DEEP Inland Fisheries Division; photos provided by DEEP Inland Fisheries Division

*This article is the second of three that focuses on Connecticut's state fish hatcheries. The Quinebaug Valley State Trout Hatchery, our newest (est. 1972), will be featured in the near future.*

Efforts within Connecticut to hatch fish eggs and stock fry (a juvenile fish that has absorbed its egg sac) date back to the mid-1800s. This early fish culture and stocking supported the restoration of Atlantic salmon (extirpated) and augmented the rapidly decreasing stocks of American shad within the Connecticut River. By the late 1800s, fry stocking of bass, trout, landlocked salmon, and a variety of panfish was established.

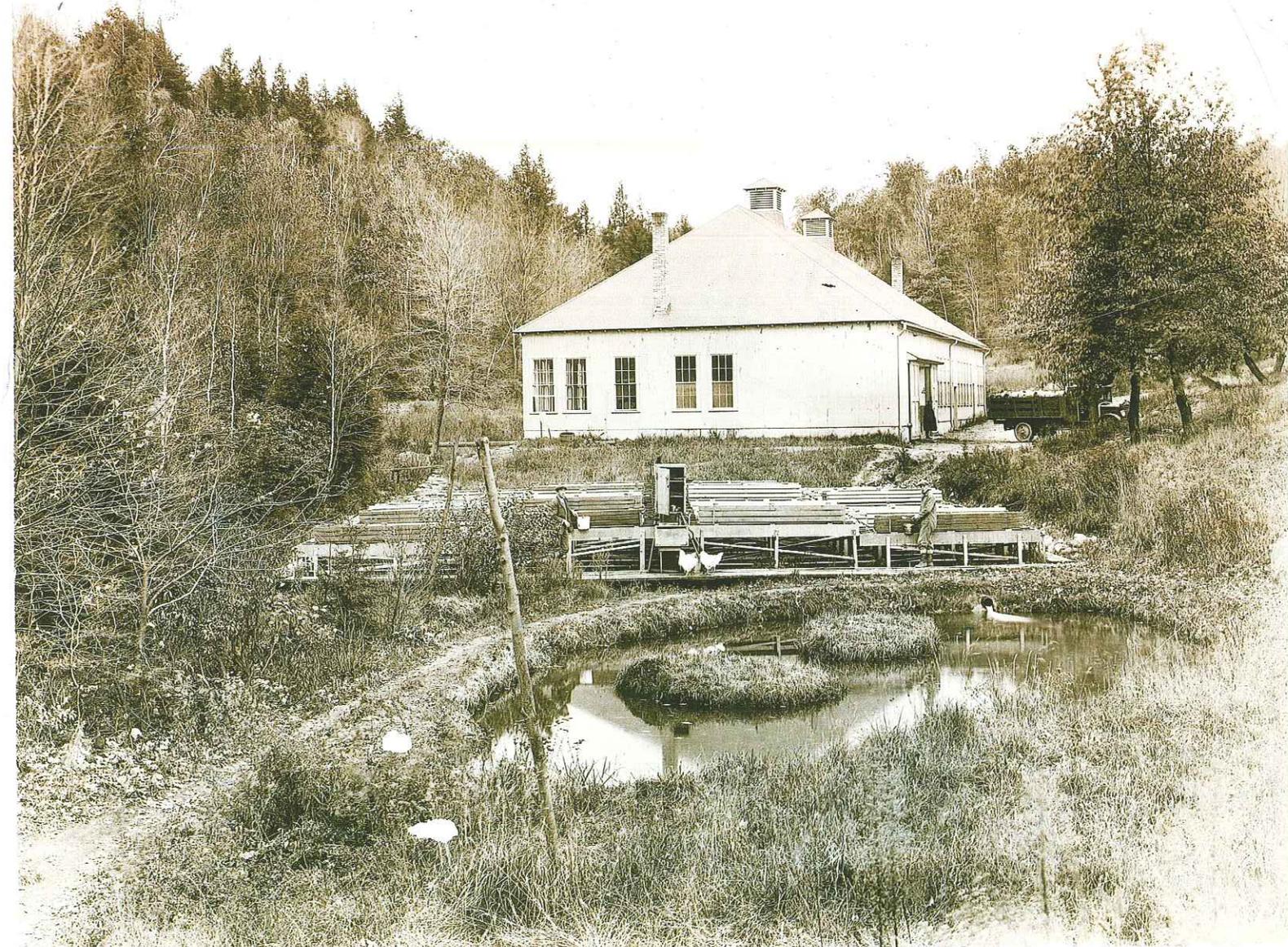
## **Experimental Beginnings**

One of the most popular fry stock-

ing programs of the time involved brook trout. Beginning in 1880, the Connecticut Fish Commission annually purchased hundreds of thousands of brook trout fry and supplied 4,000 fry to all applicants who agreed to liberate them into a river or stream. Over subsequent years, public demand for these fry outpaced supply. To increase production, the Fish Commissioners established remote "field stations" at different locations around the state and lobbied the State Legislature to acquire a fish hatchery (the first was established in Windsor Locks in 1899).

The first fish reared at the experimental Burlington field station were 400,000 brook trout fry in 1921. Within six months, the Burlington fry were double the weight of trout from other field stations, and the few retained to grow to

adult size (6 inches) did so within a year of being hatched. The Commissioners were impressed with these initial results, stating, "*This clearly demonstrated that this water from the underground stratum is of unusually good quality for hatching and growing trout.*" So, in 1923, the state facility in Burlington was hatched. With such promising results, the Commission purchased 222 acres of land, including most of the upstream watershed. The property was described in the Commission report as "*...it embraces pasture and woodland with some tillage land and a number of dilapidated buildings. Several wells were driven to depths of 10-16 feet and combined produced over 500 gallons per minute.*" Soon after, the Commission contracted the construction of a closed water supply system. The system was



built using banded wooden pipes and was designed to keep the spring water free of contamination. Water was piped to the 150' X 50' hatchery building and associated rearing ponds. At the nearby satellite property, the "Punch Brook" ponds were used to rear warmwater species, including calico bass and bullheads.

By 1924, the Burlington State Fish Hatchery was fully operational and had demonstrated that the state could produce fingerlings and adult fish at substantial savings over purchases from private vendors. Furthermore, with advances in motorized transportation, the centralized location was "practical and economical" with proceeds from the sale of fishing licenses covering operation and maintenance costs. Burlington's success brought an end to the remote field station program.

### ***Bigger Is Better***

*"To raise larger trout rather than more fish is the aim of the Commission"*- John W. Titcomb, Superintendent, 1926

The angling community quickly became spoiled as Burlington's brookies appeared to be "native," and were larger than previously stocked trout (human consumption grade liver was used as feed). The popular idea at the time was that "good fishing was only accomplished by liberating fishes to be caught." Each year, trout anglers placed demands on the Commission to stock more of the larger trout. To support this, the state needed to propagate trout at hatcheries and "plant" them in streams "for the sole purposes of having them caught before they are lost to other causes." Trout planting was accomplished by the Wardens who were forbidden to provide any information on where or how many fish were stocked so that every license holder had equal opportunity to catch their limit.

Connecticut's trout liberation program had transitioned from stocking fry and fingerlings into all suitable waters, to rearing, fewer but larger, adult fish to support "put-and-take" fishing. The pressure to stock bigger fish and to make sure all state-regulated streams would receive a proper allocation of trout resulted in the addition of several ponds at the Burlington Hatchery and the recently acquired Kensington property. At its capacity in the 1920s, the Burlington Fish Hatchery was producing over a half million brook trout fingerlings (4-6 inches) and 25,000 adult fish (greater than 6 inches) annually.

Following World War II, participation in fishing and hunting increased greatly. As



**Burlington State Fish Hatchery - Then and Now: a view of the hatchery building (north side) and first rearing pond. Photo from 1949 (previous page) and 2015 (above).**

Connecticut's economy shifted from agrarian to manufacturing, post-war advances in industry and technology resulted in an increase in personal leisure time. Fewer people were working from sun up to sun down, and most had a job with a shift, the beginning of a 9-5 work schedule. Throughout this time, the Burlington Hatchery continued to produce many of trout resources (some were still purchased from private hatcheries) until the Quinebaug Valley State Trout Hatchery began production in 1972.

### ***Burlington Today***

In addition to rearing trout used for "put and take" fisheries, Burlington raises several specialty fish to diversify Connecticut's fisheries.

**Brown Trout - Survivor Strain:** The concept of the Survivor program is to use fish that survive in the river (both stocked and wild) to produce the next generation of fish to be stocked. The rationale is that the environment selects the fish with the best adapted genes to survive, and this breeding program conserves and reinforces those genes. Since 1993, trout from the Farmington River have been used for Survivor strain broodstock. Eggs from these trout are raised to produce fish for stocking within the Farmington River Trout Management Area.

**Sea Run Brown Trout - Iijoki Strain:** During the 1950s and 1960s, the state managed a sea-run brown trout

program in selected tributaries to Long Island Sound. During this timeframe, the Burlington facility was used to incubate brown trout eggs that were imported from England and the Netherlands. Recently, staff imported eggs from sea-run fish from Finland (Iijoki strain). The first set of eggs arrived in 2014 and are now in the parr stage (a 1 to 2-year-old fish) and residing in Burlington's outside raceways. These 4,000 fish will be retained until spring 2016 when they will be stocked as smolt (2 to 4-year-old fish ready to head out to sea). A total of 29,000 fry have hatched from the second set of imported eggs. The DEEP Inland Fisheries Division is currently stocking these fry and will retain 12,000 to rear to the smolt stage.

**Kokanee Salmon:** Kokanee are a landlocked form of the larger Pacific sockeye salmon. Each autumn, adults are trap-netted and transported to the Burlington Hatchery for spawning. The fry are reared until late May and then stocked in East Twin Lake (Salisbury), Lake Wononskopomuc (Salisbury), and West Hill Pond (Barkhamsted/New Hartford). Within three summers, salmon grow to be 12-16 inches in length. The Burlington Hatchery produces all of the 150,000 kokanee salmon fry distributed in the state. This cost-effective management effort has created a unique fishery providing an estimated 20,000 to 30,000 hours of recreational fishing each year.

# Youth Pheasant Hunting Events Popular this Year

Written by Tom Donlon, DEEP Wildlife Division; photos by Paul Fusco, DEEP Wildlife Division

Each year, sportsmen's organizations from around the state host special events designed to provide opportunities for youth to experience the outdoors and share their passion for hunting. More than a dozen clubs and organizations provide facilities, funding, and volunteers to make this program possible.

"There are a lot of moving parts to make these hunts happen," said Warren Speh, a volunteer Senior Instructor for Connecticut's Conservation Education/Firearms Safety (CE/FS) Program and a driving force

behind these events for many years. "The coordination effort is unbelievable...but so are the results. When young hunters participate in these events, they enjoy an experience that can't be beat."

Participants are junior hunters between the ages of 12 and 15 that have successfully completed a CE/FS Firearms Safety Course. All are required to register either through the Online Sportsmen's Licensing System or with the sportsmen's organization sponsoring the event. After arriving at the junior hunting event of their choice, the young hunters participate in a pre-hunt preparation that focuses on safety and shooting skills. Topics that were covered in the hunter safety course, such as zones of fire, muzzle control, and "shoot, don't shoot" scenarios, are reviewed to ensure every participant has a safe experience.

Next, it is off to the trap field where junior hunters have the opportunity to become familiar with their shotgun and

gain confidence in hitting a moving target. Dante Grasse, a long-time trap shooter and volunteer CE/FS Instructor said, "I enjoy working with the kids on the trap field. They listen intently and are so eager to learn. When they put all of the parts together and start hitting clay targets, you can see an ear-to-ear smile come across their face. That's what it is all about."

When the junior hunters finally take to the field during the event, they have an opportunity to meet their hunting partners – a trained bird dog with a handler and a safety officer. After the introductions, the handlers describe how the dog will hunt and what the hunters will do when a pheasant is found by the dog. The safety officers, who accompany each hunter, review the safety rules and explain the process of the hunt. The hunting party moves into the field and the dog goes to work. Within a few minutes, the dog is on a bird, the hunters move

into position with safety officers by their side, and all wait with anticipation for the bird to flush. When the opportunity presents itself, junior hunters rely on their shooting skills to harvest the pheasant. This year, as in the past, nearly every junior hunter harvested a bird. Most junior hunters will agree that success is having the opportunity, not just being able to harvest a bird.

After the hunt, participants were taught how to properly clean the harvested game.

"It's one thing to see it. It's another thing to do it yourself," said one participant. "Honestly, it's the one thing I wasn't sure about, but when you put it in perspective, it is what we do as hunters. It's the right thing to do."

When asked how he was going to prepare his pheasant, the young hunter responded "I don't know yet, but I know it's going to be good."

This year, nearly 100 junior hunters



Thanks to the efforts of many volunteers, mentors, and well-trained hunting dogs with their handlers, junior hunters who participated in the junior pheasant hunting events this past fall were able to harvest their first pheasant.

*Keep up to date on Junior Hunter events and information at [www.ct.gov/deep/JuniorHunter](http://www.ct.gov/deep/JuniorHunter) and [www.Facebook.com/CTFishandWildlife](https://www.facebook.com/CTFishandWildlife).*

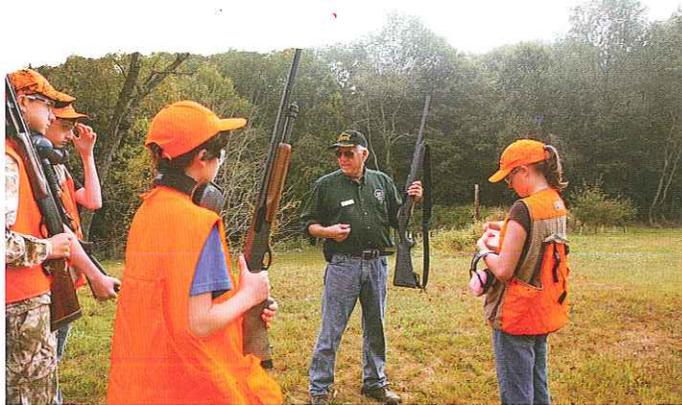
took part in one of the special events held throughout the state. Recent graduates of a CE/FS Firearms Safety Course received invitations; however, any junior hunter from 12-15 years of age was able to participate.

From the event coordinators and dog handlers to the cooks and safety officers, there were almost as many volunteers as there were participants. All of the volunteers have a common desire to share their passion for hunting and pass on the hunting tradition to our youth. The events would not be possible without the dedicated and generous support provided by the volunteers.

Look for information about Junior Hunter Training Days on our new Junior Hunter webpage at [www.ct.gov/deep/JuniorHunter](http://www.ct.gov/deep/JuniorHunter). Be sure to check this page often to find out about past and future events.



Each dog handler explained to the junior hunters and safety officers about what to expect when hunting with a trained dog, as well as safety considerations for the dog.



Each hunt began with a safety review by certified hunter safety instructors on such topics as zones of fire, muzzle control, and "shoot, don't shoot" scenarios.



When the opportunity presented itself, junior hunters relied on their shooting skills to harvest a pheasant. The safety officer stayed nearby at all times.

## 2016 Junior Hunter Training Days

Regulations designate certain days for youth hunting in Connecticut. On these days, licensed junior hunters (12 to 15 years of age) may hunt when accompanied by a licensed adult hunter 18 years of age or older. The adult mentor may not carry a firearm and must remain within physical contact at all times in a position to provide direct supervision and instruction. These training days provide junior hunters with an opportunity to learn safe and effective hunting practices from experienced hunters.

### *Spring Turkey - Saturday, April 16 through Saturday, April 23 (excluding Sunday)*

On private land, both the licensed junior hunter and adult mentor must have a valid spring season private land turkey permit and written consent from the landowner. The adult mentor may assist in calling turkeys. Hunting hours for Junior Hunter Training Days only: 1/2 hour before sunrise to 5:00 PM. Harvested turkeys must be tagged and reported.

### *Pheasant - Saturday, October 8*

Private Lands Only: Youth participants must possess a current junior hunting license and pheasant stamp. There may be exceptions if hunting on a private shooting preserve or a hunting club property with a pheasant stamp exemption. Youth must be accompanied by an adult at least 18 years of age. Adults must possess a valid hunting license; however, they are not allowed to carry a firearm.

**Waterfowl** - Dates will be published in the 2016-2017 Migratory Bird Hunting Guide, which will be available in late August 2016.

Participants must possess a valid small game junior hunting license and a HIP permit and be accompanied by an adult at least 18 years of age. Adults must possess a valid hunting license; however, they are not allowed to carry a firearm. Ducks, geese, mergansers and coots may be hunted. Bag limits and shooting hours are the same as for the regular duck and goose hunting seasons.

### *Deer - Saturday, November 5 through Saturday, November 12 (excluding Sunday)*

On private land, both the licensed junior hunter and adult mentor must have a valid private land shotgun/rifle deer permit and written consent from the landowner. On state land, the licensed junior hunter must have a state land shotgun deer permit (Lottery or No-Lottery), while the adult mentor must have a valid deer permit of any type. Deer hunting on Junior Hunter Training Days is permitted on any Lottery or No-Lottery Deer area, regardless of area designated on the permit (some exceptions apply - consult the current Connecticut Hunting and Trapping Guide or [www.ct.gov/deep/JuniorHunter](http://www.ct.gov/deep/JuniorHunter)). Harvested deer must be tagged and reported.

# Northwest Connecticut Fawn Mortality Project Wrap-up

Written by Bill Embacher, Wildlife Management Institute

Concerns raised by hunters over a declining number of deer during the past decade led the DEEP Wildlife Division to initiate a project studying sources of mortality and recruitment of deer in northwest Connecticut, specifically deer management zone 1. The project began in winter 2012 and concludes in winter 2016, although collared deer will continue to be monitored on weekly for the next year. Aspects of the project include using spotlight surveys to assess fawn/doe ratios, surveys to assess hunter opinions, assessing herd age structure, live-capturing adult and newborn deer, and investigating landscape use, fawn and doe interactions, seasonal movement patterns, home range sizes, and causes of mortality. With the vast amount of data that has been collected over the past four years, researchers will be dedicating the next year to complete all analyses. They have just begun to analyze these data and this article provides an overview of findings from what has already been processed.

## Field Research

Each winter, researchers established capture sites immediately following the hunting season. This included scouting potential areas, gaining permission to access private land where necessary, and setting up bait sites for capture opportunities along roadsides or from tree stands or ground blinds. Trail cameras were often used to monitor bait site activity. When it was determined that deer were using a site regularly, researchers used a dart gun and tranquilizing darts to capture deer at each site, typically from late afternoon through early evening. Adult does were immobilized, fitted with ear tags for visual identification, collared with Very High Frequency (VHF) transmitters, and given Vaginal Implant Transmitters (VIT). The VIT is a temperature sensitive device, which falls out when a doe gives birth, enabling researchers to locate birthing sites and potential fawns. Although most deer give birth around late May, does were located three times weekly using radio-telemetry from early to mid-May. From mid-May onward, collared does were monitored daily, with researchers spending 18 to 20 hours daily in efforts to locate newborn fawns as soon after birth as possible. When VITs were expelled (denoted by a

change in the VHF signal), efforts were made to locate fawns at the birth site. If none were found, efforts continued in the area in case does had moved fawns or a longer birthing process had occurred leading away from the initial birthing site. If fawns were found, they were fitted with an expandable radio collar, and biological measurements were taken, such as sex, weight, and lengths of a hind leg, tail, and ear. Once data were collected, the fawns were quickly placed back where they were originally found. Researchers wore surgical gloves to minimize direct transfer of human scent.

Does and fawns were remotely located via radio telemetry for 90 days after the final fawn was captured. Each collar has a mortality sensor, which if motionless after four hours, sets off a special signal similar in function to the VIT. Researchers can then locate the deceased animal and determine its cause of death. After 90 days, monitoring was reduced to three days weekly until the following spring, at which point the deer were monitored once per week.

Over four winters (2012-2015), researchers captured a total of 103 adult does in Canaan, Cornwall, North Canaan, Salisbury, and Sharon. The average age of the captured does was four years old. Of the 103 does captured, 79 are still alive. Eighty-four percent of collared does survived one year. The majority of doe mortalities was from unknown sources. Because the main objective of the study was to categorize sources of fawn mortality, does were checked less frequently (once per week if they had no fawn or after they had been collared for over one year). Often the doe had been dead and scavenged by the time researchers were able to investigate it. Hunting made up the majority of known mortalities, accounting for 32%. The remaining sources were predation (20%) and motor vehicle accidents (8%).

Of the 91 fawns captured, 79 were captured from the collared does and 12 were captured opportunistically. Field research led to an overall ratio of 1.4 fawns per doe

at the time of birth. The greatest percentage of fawns was born during the week of May 28 (48%). Fifty-six percent of fawns were males, and the average weight of males did not differ from females (7.5 lbs.). Fawn survival after 90 days was 34%, while survival at one year was 31% (not including data from 2015). Fifty-seven percent of mortality in fawns was due to predation. Bobcats and bears were responsible for most of the mortalities, while coyotes (which are often blamed) only accounted for five of 31 predator kills. Twenty-five percent of mortalities were due to human interaction, which includes agricultural practices, hunting, and poaching. Ten percent of mortalities were from natural causes, and 8% unknown. A similar study will be conducted in the future to determine survival rates as areas with bears.

Home range data have not yet been calculated. However, as reported in previous updates in *Connecticut Wildlife*, four does collared in 2013 have ventured as far as 13 miles from their original spring capture site, returning back to the same site each fall. Two of these deer are still alive and continue to follow this pattern. None of the fawns dispersed any large distances while their collars were functioning (fawn collars have a one-year battery). The majority of the collared does stayed within a square mile area throughout the year, and within an even smaller area during various times of the year.

## Fawn/Doe Ratio Studies

Three different methods were used for observing fawn/doe ratios in the study area. Twice per year (September and November), spotlight surveys were conducted to count fawns and does. High-

### Fawn/Doe Ratios Using Various Methods

	Hunter Observations	Fawn Study*	Sept. Spotlight Surveys
2012	0.50	0.40	0.33
2013	0.43	0.40	NA
2014	0.60	0.60	NA
2015	NA	0.22	0.25

\* Fawn Study refers to ratio observed with collared deer using 90 day survival.

powered spotlights were used from the back of pickup trucks while researchers slowly searched for deer on predetermined routes through areas likely to have deer. The observed fawn/doe ratio was then compared with hunter reported ratios collected via the online harvest reporting system and with data from our research. Fawn/doe ratios have been similar between hunter observations and what was observed from collared deer after 90 days, indicating that this is a reliable means of obtaining accurate estimates. Variability in conditions makes spotlight surveys less reliable than hunter observations.

### ***Tooth Collection and Herd Age Structure***

In order to evaluate the age structure of the deer herd in the study area, teeth were collected from harvested and vehicle killed deer. Age was determined using the tooth wear and replacement method. In addition, incisors from each deer were removed, cleaned, and sent to Matsons Lab in Montana for cementum age analysis. This analysis is similar to counting the rings on a tree to determine age, which can be more accurate than the molar wear aging technique typically used. Teeth were collected and analyzed from all deer management zones in 2014 for comparison. In total, 489 teeth were collected and sent to Matsons Lab for cementum age analysis. Results from the Lab are still pending as of this writing. However, 189 deer were aged based on molar wear. Of those, the average age statewide was 3.5 years. Twenty-seven of those were from the study area, whose average age was also 3.5. The oldest deer aged in the study area was 8.5 years old from deer manage-



P. J. FUSCO

**A total of 91 fawns were monitored by radio telemetry as part of a multi-year project to study sources of mortality and recruitment of deer in northwest Connecticut, specifically deer management zone 1.**

ment zone 1, and 10.5 years statewide. Deer are aged by the half year due to the timing of the hunting season when most teeth are collected.

### ***Hunter Survey***

In spring 2015, deer hunters throughout the state were surveyed to assess their views concerning deer hunting in Connecticut. Hunters who responded that they had hunted in the study area of northwest Connecticut were asked an extra set of questions pertaining to their hunting experiences. A total of 516 respondents answered questions acknowledging that they hunted in deer management zone 1 or 2. Most respondents (60%) had been hunting there for five years or less, and 40% had been hunting the area for six or more years. Fifty-six percent of hunters harvest one or two deer, an additional four percent harvest three or four, while 40% harvest no deer annually. Many hunters (69%) who have hunted in zones 1 and 2 for multiple years felt that the population has decreased over time. Most hunters (85%) believed that coyotes are the cause of the decline, while fewer believed bears (48%) or bobcats (35%) were responsible. Many felt that poaching (31%) and habitat loss (26%) also has had an effect on the population. About half (51%) of hunters would pass on does to ensure future hunting opportunity,

45% would not pass, and four percent were unsure. Most (55%) felt that bag limits should remain the same, 25% would like to see bag limits decrease, and eight percent would like to see them increase. Approximately two thirds of hunters were satisfied with overall deer hunting experiences (64%), areas available to hunt (66%), and the number of hunters they encounter while hunting (61%). A third was satisfied with the number of deer in that area (34%).

### ***Conclusions and Future Plans***

In northwest Connecticut (deer management zones 1 and 2), bear densities are believed to be the highest in the state. Based on this study, high bear densities appear to be impacting deer productivity in this area, and may have an impact on the deer population over time. Additionally, like many areas in Connecticut, bobcat populations have been rising. In the absence of bears, it is unclear if additive bobcat predation will make up the difference in predator mortality. Although coyotes appeared to have little impact on deer in northwest Connecticut based on this study, they may have greater impact in other areas of the state. Researchers hope to answer this question over the next few years as the Deer Program plans to look into fawn survival in other areas of the state and the effects of predation.



### ***CT Deer Management Zones***



# Connecticut's Thunder-pumper: The American Bittern

Article and photography by Paul Fusco, DEEP Wildlife Division

Connecticut's precious but few large expanses of marshlands can sometimes be home to an uncommon and reclusive relative of the herons. With cryptic plumage and a habit of standing motionless or moving imperceptibly slowly, the American bittern becomes virtually invisible as it blends into its surroundings. Usually, the bird stays concealed in tall stands of cattails or marsh grasses, making it very difficult to observe. With a little patience, the bird may move into a more visible position, giving the observer a chance to identify it as an American bittern.

At first glance, bitterns appear to be similar to most members of the heron family. However, there are several differences in physical structure and behavior that separate them from the herons. Bitterns lack the long breeding plumes of many herons. They are more solitary than herons, and do not nest communally in rookeries, nor do they migrate in flocks.

## Description

American bitterns are a medium-sized, stocky wading bird. They are approximately 23 inches in length with a wingspan of 45 inches. The plumage is warm brown, darker on the back and with streaking more pronounced against the white underside, including the neck. A long black mustachial mark is on either side of the upper neck. In flight, the outer wings show dark topside primary feathers. Bitterns have a short tail and trailing legs when flying. They fly with their necks held straight out rather than folded back like the herons. The bill and legs are mostly yellow and the eyes have a yellow iris.

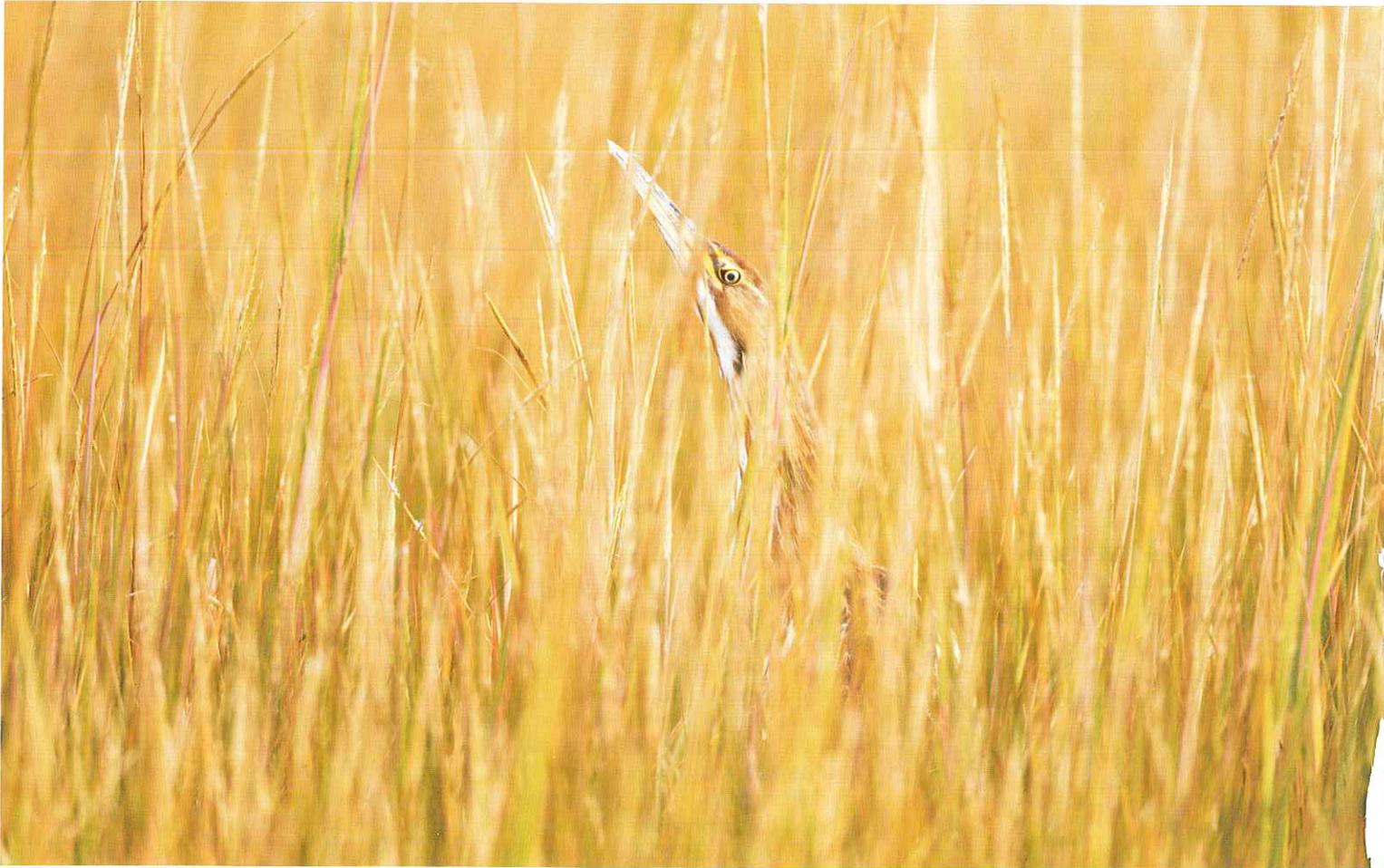
During the breeding season, American bitterns are found throughout most of North America, including almost all of the United States and the southern half of Canada. Being a short distance migrant, they move south to spend the winter in the southern U.S. and Mexico. Coastal

marshes are important stopover habitats for bitterns during fall migration. The birds are tolerant of cold winter conditions and some will spend the winter in Connecticut's larger salt marshes.

## Behavior

Bitterns are stealthy hunters, stalking mostly from the concealment of marsh grasses rather than in the open as herons do. They are most active around dawn, dusk, and at night. Bitterns often hunt with their neck and bill outstretched as their eyes look downward toward a potential target. Slowly moving into position, bitterns aim their bill before striking. Food items consist mostly of small fishes, crustaceans, insects, amphibians, snakes, rodents, and small birds.

Large freshwater marshes with tall dense vegetation, especially cattails, are the favored breeding haunts of the American bittern. In the past, this bird was known to breed in brackish wetlands



American bitterns use tidal marshes along the Connecticut shoreline during the fall migration and a few may remain over the winter.



methodically, skulking along the edge of a marsh can be a memorable experience for any outdoor enthusiast. By visiting the right habitat at the right time of year, and looking carefully and patiently, an observer may stand a fairly good chance of being rewarded with a good look at one of our hard-to-find species, the American bittern.

**Left:** During the breeding season, male American bitterns exhibit a display which includes a loud territorial call accompanied by the puffing up of neck feathers, including a seldom-seen white patch at the shoulder.

**Below:** Bitterns feed on small animals, including fish, frogs, birds, and rodents, which they catch by stalking.

near the Connecticut coast. However, all recent documentation of breeding has been from inland locations, primarily in the northwestern part of the state, although the northeastern part also has some suitable areas.

American bitterns will sometimes “freeze” motionless with their head and bill pointed straight up in the air, a behavior referred to as stargazing. Stargazing helps them blend into reedy surroundings when they feel threatened.

In spring, males will exhibit one of their most remarkable behaviors, giving a loud territorial call, “*pump-er-lunk*.” This low-pitched booming call resonates throughout the marsh. The sound quality is made possible by a specialized musculature in the neck and chest. The call gives the bird its aptly described colloquial name of “thunder-pumper.”

### **Conservation**

The American bittern is a rare breeder and local migrant in Connecticut. It is listed as a state endangered species. Historically, the American bittern was once more common in Connecticut than it is today. Wetland loss and habitat degradation are the most important factors contributing to the decline in the bittern population. Wetlands continue to face development pressures which can isolate bittern populations. Other factors that have been implicated in their decline are the effects of accumulated chemical pollutants and the draining of marsh habitat.

The secretive nature of bitterns makes them a challenge for even the most experienced observer. Seeing one of these uncommon birds as it moves slowly and



# Great Turnout for Connecticut Hunting & Fishing Day 2015

Written by Brendan Zielinski, DEEP Wildlife Division

On September 26, DEEP hosted its fifth Connecticut Hunting & Fishing Day at Sessions Woods Wildlife Management Area (WMA) in Burlington. First held in 2010, this year's event proved to be another huge success. With over 800 attendees from 100 different towns in Connecticut, there were plenty of activities for hunters, anglers, kids, and the general public to participate in.

Everyone who attended had a full day of activities to choose from, which was made possible by a long list of sponsors and vendors. Families and individuals of all ages had the opportunity to sharpen their shooting skills at the .22 rifle, BB gun, archery, and trap shooting ranges. Many also enjoyed hunting dog demonstrations, wildlife telemetry and tranquilization, a marine T.I.P. trailer, casting demonstrations, and live music provided by Con Doty and Life Station Earth.

Popular scheduled events included the Congress of Rough Riders, which put on two shows demonstrating cowboy action shooting. Talons! A Bird of Prey Experience was also a huge hit. Master Class Falconer Lorrie Schumacher presented two interactive raptor shows featuring two owls, a hawk, and falcon. Those who attended the shows learned about these amazing birds and had a personal experience as the birds flew overhead. In between the presentations, visitors had a closer look at the birds and took photos.

There were a variety of activities geared towards children as well, such as crafts, face painting, live fish and reptiles, and a kid's casting area. DEEP is extremely grateful to Cabela's for donating 140 fishing poles that were distributed to some of the kids who participated in the casting activity.

Biologists and staff from DEEP were on hand to answer questions and interact with visitors. Representatives from various sportsmen and outdoor equipment companies set up booths to provide information.

With a full day of activities scheduled, attendees and staff became hungry! Boy Scout Troop #27 from Winsted volunteered their time to provide a variety of food and refreshments that were available for purchase.

Many participants and exhibitors participated in a survey to help with planning and improving this event for



DEEP Wildlife Division biologist Jason Hawley demonstrates how to use a tranquilizer gun to an eager participant. Those who stopped at the telemetry and tranquilization station learned about some of the techniques used by biologists.

years to come. Participants rated the day as excellent and exhibitors and cooperators also agreed. Of those who attended, about three-quarters were first time attendees and almost everyone indicated that they would attend the event next year. If you have not yet attended Connecticut Hunting & Fishing Day, make a point to come next year on Saturday, September 24, 2016!

DEEP would like to thank the over 60 exhibitors and cooperators who helped support this year's Hunting and Fishing Day and a special thanks to our donors: The Friends of Sessions Woods, Rocky Mountain Elk Foundation, and the U.S. Sportsmen's Alliance Foundation and Weatherby Foundation International.



Attendees to Connecticut Hunting & Fishing Day get a lesson on freshwater fish from DEEP Inland Fisheries Division biologist Mike Beauchene.

# Whip-poor-will Inventory and Monitoring 2010-2015 Summary

Written by Shannon Kearney-McGee, DEEP Wildlife Division

The whip-poor-will population has declined severely in the past 50 years. In Connecticut, the whip-poor-will is listed as species of special concern. The Wildlife Division conducted a project to develop effective survey and monitoring protocols; collect abundance and distribution information on breeding whip-poor-wills; track population trends; and identify areas where the birds may still be relatively abundant.

Between 2006-2009, the Division conducted a project to improve monitoring protocols for night birds, including whip-poor-will and owls. As a result, two monitoring protocols were created, one for winter night birds and one for summer night birds, including whip-poor-will. These protocols consisted of roadside survey points in appropriate habitat with the use of callbacks to maximize detection of targeted species. Between 2010-2014, Summer Night Bird Surveys were conducted using this developed protocol to track population trends of whip-poor-will in Connecticut.

Whip-poor-will point occupancy fell from 23% (2010) to 15% (2014) of survey points estimated to be occupied by at least one whip-poor-will. Population density per survey point remained stable around 0.09 birds/point. This decline is initially disconcerting, but these survey methods do have limitations.

These roadside survey routes may not represent the state population of whip-poor-wills because they only detect individuals that are within range of a road. Additionally, survey points are static and the shrubland/edge habitat that whip-poor-wills require will grow into forest without active management. Decline of whip-poor-will survey numbers may be a result of habitat change over time (succession) at these locations and not an index of statewide decline of whip-poor-wills.

Whip-poor-wills may be concentrating in areas away from roads. Data from a telemetry project in Connecticut imply that birds may prefer acidic outcrops, most of which may not be sampled adequately from roadside surveys. Public reports also confirm there are birds in more remote locations in Connecticut; however, they are unable to be sampled from roads. Additionally, efforts to create early successional (young) forest

habitat for New England cottontails may provide more available habitat for whip-poor-wills in our state.

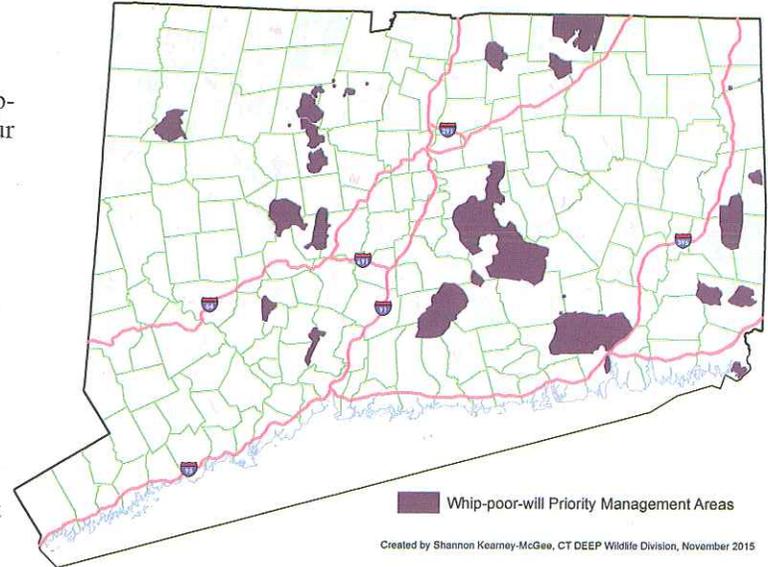
To address some of the limitations of roadside surveys, the Wildlife Division and volunteer monitors surveyed 37 early successional points using the Connecticut Summer Night Bird Survey protocol in

May-June 2015. Survey areas were chosen from managed properties – many managed for New England cottontails. These areas were surveyed to assess if any of the managed properties currently serve as habitat for whip-poor-wills and determine if management efforts at these properties are likely to be successful for whip-poor-wills in the future.

Whip-poor-wills were observed at 11 points. Locations were investigated to determine which environmental factors influenced the presence of the birds. The greatest determining factor of presence was lack of invasive species detected during vegetation surveys. Only one of the 11 locations (9%) that contained whip-poor-wills also contained invasive species, while 11 of the 26 locations (42%) where whip-poor-wills were not detected contained invasive species. This is significant because invasive plants have been shown to produce fewer moths and butterflies than native plants. Moths and butterflies are an important food source for whip-poor-wills.

Development also was related to the absence of whip-poor-wills. Only two of the locations (18%) where whip-poor-wills were detected border a developed edge, compared to 14 of the locations where surveys failed to detect whip-poor-wills (54%). Development itself may not be the cause of the birds' absence, but may be an indicator of other

## Priority Areas for Whip-poor-will Management



unmeasured environmental influences that coincide with development, such as predators, increased invasive species and disturbance, and relative use of the forest. Areas that are more remote from development should be the focus of whip-poor-will management.

Many locations that contained whip-poor-wills also were consistent with known locations from DEEP Natural Diversity Database and eBird records. This may indicate that birds are less likely to branch out to new locations and that most habitat management should be focused where birds already exist. As a result of these surveys, refined management focus areas have been created that center on large forested blocks with historical or current records of whip-poor-wills. It also would be beneficial to track numbers of birds in these respective habitats either through isolated point counts or through recording devices. This monitoring program could benefit from regular measurement of other variables (i.e., food availability) which may be associated with whip-poor-will population decline.

You can help the Wildlife Division by reporting any whip-poor-will you observe to 860-424-3011.



# 2015 Another Good Year for Piping Plovers in Connecticut

Written by Rebecca Foster, DEEP Wildlife Division

The piping plover is a small shorebird that nests on sandy beaches and islands along the Connecticut shore. It is a threatened species that is protected under the federal and state Endangered Species Acts and managed using U.S. Fish and Wildlife Service (USFWS) protocols. The DEEP Wildlife Division actively manages piping plovers and their nesting areas.

Piping plover management in Connecticut is a multi-faceted effort with varying tasks as the nesting season progresses. In April, nesting beaches are identified, and important areas of those beaches are cordoned off with string fencing to minimize human disturbance. Next, locating and protecting nesting pairs of piping plovers takes precedence. Finally, collecting nesting and breeding data and documenting disturbances to nesting pairs occurs throughout the season. Secondary tasks include public education, municipal and landowner coordination, and fencing and signage maintenance. The Wildlife Division has many partners that assist with these management responsibilities. The Division would like to thank the USFWS, Audubon Connecticut, the Audubon Alliance for Coastal Waterbirds (AAfCW), Roger Tory Peterson Institute, The Nature Conservancy (TNC), Connecticut Audubon Society, DEEP State Parks Division, the municipalities of Stratford, Bridgeport, West Haven, and Milford, and the over 150 dedicated volunteer monitors who spend countless hours on Connecticut beaches throughout the season. It is only with the continued cooperation and diligent stewardship of our partners that Connecticut's piping plovers have continued to meet and exceed population recovery goals.

## 2015 Piping Plover Nesting Season Results

The number of piping plover pairs returning to Connecticut to breed was higher this year than in the last couple of seasons. In 2015, 62 pairs were documented, compared to 51 pairs in 2014 and 45 pairs in 2013. Over the last few years, the number of plover pairs nesting in our state has increased slightly. This year, Connecticut piping plovers produced 112 young, down from a record high of 116 produced the season before. Because the number of breeding plover pairs in the state increased and the number of chicks produced by each pair decreased, overall productivity also was down. Productivity, measured as the number of plover chicks fledged (reared to the age in which they are able to fly) per pair, fell from a high of 2.28 chicks per



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pair in 2014 to 1.81 in 2015. Biologists have determined that a productivity measurement of 1.20 chicks fledged per pair is needed to maintain a stable piping plover population in this region of North America. Though productivity was lower than last season, 1.81 chicks per pair is considered quite successful, as the regional productivity goal was exceeded.

Chick losses were documented at all nesting beaches and attributed to predators. Mammalian predators were documented at all plover nesting beaches through both visual confirmation and evidence of predator disturbance: tracks, scat, digging around nest enclosures, and adult mortality are types of predator evidence found on nesting beaches. Mammalian predators identified included coyote, fox, weasel, raccoon, striped skunk, domestic dog, and house cat. In addition, avian predation from gulls, night herons, and crows was suspected. It is believed that a large number of egg and chick losses this season were due to fish crows (*Corvus ossifragus*). Neighboring states have documented issues with fish crow predation on piping plovers for a number of years, but 2015 was the first season fish crow predation seemed problematic in Connecticut, especially on beaches in Stratford, Milford, Old Saybrook, and Waterford.

## Nest Protection

Piping plovers dig a shallow depression in the sand to form a nest where three or four buff colored eggs are laid. While sitting on the nest, parent birds rely on their cryptic coloration to provide some protection from predators. The eggs and chicks are vulnerable to predators and also to being stepped on unknowingly by people. To protect eggs and incubating adults against predators and human disturbance, the Wildlife Division places metal cages with netting over the top around nests. The cage,

called an enclosure, has openings wide enough to allow plover adults and chicks, once they hatch, to move freely in and out.

In recent years, the Wildlife Division and its regional partners have noted an increase in predators “keying in” on enclosures. The predators, often foxes and crows, may learn to associate the cages with a meal of eggs and/or adult birds. Predators may attempt to dig under the enclosure to reach the eggs or consistently canvass the nesting area hoping to feed on newly-hatched chicks. The persistent presence of predators can result in increases of egg, chick, and adult losses and can also lead to nest abandonment if the parent birds are stressed enough. Predator presence, history of predator-related losses, and ongoing evaluation by volunteers and staff all help determine whether enclosure use is warranted at each beach. In 2015, out of a total 71 plover nests, 36 were exclosed and 35 were not exclosed. The percentage of nest success (eggs hatching) for exclosed nests was 75% versus 57% for non-exclosed nests. While enclosures have limitations, they continue to be an effective management tool that, more often than not, minimize egg losses and increase hatching success when used judiciously.

### ***Nesting Habitat Availability***

As the number of breeding plovers in the state increases, the amount of appropriate nesting habitat decreases. Appropriate habitat for a plover pair is a site that meets the basic requirements for survival and breeding. These requirements include food, suitable substrate for nesting, and limited disturbance.

A number of factors limit the amount of habitat available in Connecticut for piping plovers to nest. Plovers are territorial and each pair requires a certain amount of space to call “home.” At the start of the breeding season it is common to observe plovers aggressively chasing one another in a territorial bid for a section of beach. Once a territory is claimed by a pair of plovers, the pair will generally stay in this area until the young have fledged, which can range from two and a half months to an entire six month season. Each pair requires a distinct, non-overlapping territory (from other plover pairs), so there is a limit as to the number of nesting pairs that each beach can support.

An ideal plover nesting beach would be secluded, thus limiting human disturbance. Beaches with a high amount of recreational use are often littered with an abundance of garbage, which attracts additional predators to the area, specifically, crows, skunks, and raccoons. These predators also are responsible for numerous plover adult, nest, and chick mortalities each season on those beaches. As the number of plover pairs increases, pairs are being forced to nest on busier beaches where they are exposed to more disturbance and predator stresses.

Nesting on a busy beach also can limit food availability for both adult and young piping plovers. Plover chicks are precocial, meaning within hours of hatching they are able to walk about to feed themselves. If the chicks are on a crowded beach, however, the parent birds may be unable to lead them to the water to feed. Plovers need access to the high tide wrack and water lines which contain the marine crustaceans, worms, and invertebrates they eat.

More than 10 pairs of piping plovers commonly nest on privately-owned beaches in Connecticut. Although most homeowners become enthusiastic “plover stewards” who respect and even assist their bird guests, plovers that nest on private beaches are still subjected to a good deal of disturbance.



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### ***Dismal Results for Least Terns***

**Least terns are another state threatened species of shorebird that nest on Connecticut beaches, often right alongside piping plovers. The Wildlife Division and conservation partners also manage and protect least tern colonies in Connecticut.**

**In 2015, the number of least terns that attempted to nest in Connecticut declined. The least tern pair count dropped from a high of 530 in 2013, to 257 in 2014 and 241 in 2015. Only 27 least tern chicks fledged in Connecticut this season. This is a drastic decline from 75 fledged in 2014 and 97 fledged in 2013.**

**The largest colonies formed on historical nesting beaches in Milford, West Haven, Westbrook, Old Saybrook, and Waterford. Unfortunately, in 2015, very few least tern eggs hatched. Most nest losses were attributed to high tide wash-outs, storms, and predator losses.**

**The Wildlife Division is monitoring the state's least tern population closely, along with our neighboring states of Massachusetts, Rhode Island, and New York (Long Island). Often, if one state's population numbers decline, a nearby state will see an increase in their numbers of breeding least terns. Despite dismal productivity in Connecticut, the adult population of least terns in our region has remained relatively stable. Annually, each state submits a census count that is used to evaluate population trends at the regional level.**

Holiday celebrations, evening bonfires, fireworks, predation by cats and dogs, sunbathing, and all terrain vehicle (ATV) use are just a few of the disturbances that these birds may encounter on private beaches.

Overall, the majority of factors limiting availability of nesting habitat in Connecticut are human-related. Coastal development, competing recreational uses at beaches, human disturbance, and garbage that attracts predators will continue to limit the available habitat for plovers. Public education and plover stewardship are imperative going forward for the continued success of piping plovers in Connecticut.

### ***Looking Ahead to 2016***

**The Wildlife Division would like to thank the incredibly dedicated group of conservationists that protect and monitor Connecticut's nesting shorebirds. Because of them, the 2015 nesting season was another successful one for the piping plovers in our state!**

**In 2016, the Wildlife Division will be ready to use all of the tools, data, and manpower available to effectively manage imperiled shorebird populations in Connecticut. Anyone who wishes to become a USFWS piping plover/least tern volunteer monitor, please contact the Audubon Alliance for Coastal Waterbirds at [ctwaterbirds.blogspot.com](http://ctwaterbirds.blogspot.com).**

# Winter Is the Perfect Time to View Bald Eagles

Written by Brian Hess, DEEP Wildlife Division

If you are reading *Connecticut Wildlife* magazine, you probably spend the warmer months exploring Connecticut's cliffs, hills, forests, grasslands, wetlands, streams, rivers, lakes, ponds, beaches, and coastline. You likely take note of numerous mammals, birds, reptiles, amphibians, fish, and insects all around you. You probably enjoy watching the natural cycle as animals reproduce, forage, and grow through the bountiful New England growing season.

When fall rolls around, some animals migrate to warmer climates. Others find a protected tree cavity, quiet cave, or muddy creek bottom in which to spend the winter. Some may perish in the first few frosty evenings and their kind will not be seen again until their offspring emerge next April.

Other animals enjoy a New England winter. For the bald eagle, Connecticut represents a welcoming winter refuge. Eagles that nest at more northern latitudes move south in winter to find open water. This leads birds to congregate along the Connecticut, Housatonic, and Thames Rivers, and their tributaries. These moving waters are critical fishing grounds for eagles. Even when ice forms on the rivers, fish and waterfowl concentrated around the remaining open patches can be food for wintering eagles.



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In Connecticut, one of the largest concentrations of wintering bald eagles congregates at FirstLight Power's Shepaug Hydroelectric Station in Southbury.

In addition to rivers, bald eagles have adapted to using hydroelectric dams as winter feeding stations. At green power hydro stations, the churning discharge of water downstream of the power generating turbines remains relatively warm and ice-free through even the coldest of winters. In Connecticut, one of the largest

concentrations of wintering bald eagles congregates at FirstLight Power's Shepaug Hydroelectric Station in Southbury that creates Lake Lillinonah. On most days between December and March, bald eagles are fishing the Housatonic River and roosting in the tall trees on the banks below the dam.

Fortunately for the Connecticut wildlife aficionado, these reliable congregations provide excellent opportunities for wildlife viewing. FirstLight Power has operated its Eagle View Facility with its viewing blind, telescopes, and binoculars each winter for over 30 years. In that time, over 150,000 people of all ages have visited the facility. The Eagle View is free to visit but requires a prior reservation so that the number of guests does not create an undue amount of disturbance for the wintering eagles. FirstLight staff, DEEP Master Wildlife Conservationists, and volunteers from Connecticut Audubon Society will provide helpful bald eagle and birding information, and assist visitors in spotting and identifying bald eagles to maximize the viewing experience. The Shepaug Hydro Eagle View is open on Wednesdays, Saturdays, and Sundays from late December through mid-March from 9:00 AM-1:00 PM. To schedule a free visit, go to <http://reservations.shepaug eagles.com> or call 1-800-368-8954.

## Volunteer for the Midwinter Eagle Survey

In addition to visiting the Shepaug Hydro Eagle View, participating in the Midwinter Eagle Survey is another great way to view wintering bald eagles and also help monitor their numbers. Coordinated, nationwide counts of bald eagles have been happening since 1979. At that time, bald eagles were rare in the continental United States and the species was federally endangered. Since that time, eagles have made a dramatic comeback, and their numbers have been monitored each January by volunteers across the country. Nationally, the count has been coordinated by the National Wildlife Federation, Bureau of Land Management, National Biological Survey, and U.S. Geological Survey, and it currently is coordinated by the Army Corps of Engineers.

In January 2015, over 200 participants counted 146 eagles during the Midwinter Eagle Survey in Connecticut, the highest results ever for our state. While the year-to-year counts have varied based on local weather and conditions, the trend is clear – the eagles are coming back.

Participating in the Midwinter Eagle Survey requires only the ability to identify an eagle. Participants are assigned a lake, reservoir, section of river, or section of shoreline. On the morning of the designated Saturday (January 9 for 2016), volunteers travel around or along their route, looking for wintering eagles. The DEEP Wildlife Division coordinates Connecticut's Midwinter Eagle Survey. For more information about participating, contact Brian Hess at [Brian.Hess@ct.gov](mailto:Brian.Hess@ct.gov).



B. HESS, WILDLIFE DIVERSITY PROGRAM

# Survey of Wildlife Agencies Sheds Light on Deer Harvest Reporting Methods

Written by Andy LaBonte, DEEP Wildlife Division

A natural follow-up to the “From the Woods to the Web” article that was published in the November/December 2014 issue of *Connecticut Wildlife* is a look at the results from the 2014 Nationwide Harvest Reporting Survey. In August 2014, the DEEP Wildlife Division’s Deer Program sent emails to all United States (50) and Canadian (8) wildlife agency deer coordinators to assess a variety of harvest related questions. Surveys were completed by all Canadian Provinces and all but two state agencies for a 97% response rate.

It was found that seven states/provinces have no mandatory harvest reporting requirements whatsoever. Of the majority of states/provinces that do, 64% rely on online harvest reporting as the primary means of estimating annual harvests. Other methods used were in-person check stations (46%), telephone (41%), and mail-in kill cards (25%). One study conducted in 2000 found that no states were using online reporting and the majority of states (56%) were using mandatory in-person check stations for recording annual deer harvests. In more recent years, another study showed that 44% of agencies used online reporting.

Telephone and internet reporting became available for Connecticut hunters in 2009. During the 2014 shotgun-rifle season, 71% of successful Connecticut hunters used the online reporting system and 29% used the telephone reporting system. With advances in computer technology and the power of electronic handheld devices, based on results from our nationwide survey, 13 states/provinces that do not currently use online reporting are looking to use online reporting in the future. Four agencies are going as far as creating mobile smart phone applications for even greater ease of reporting.

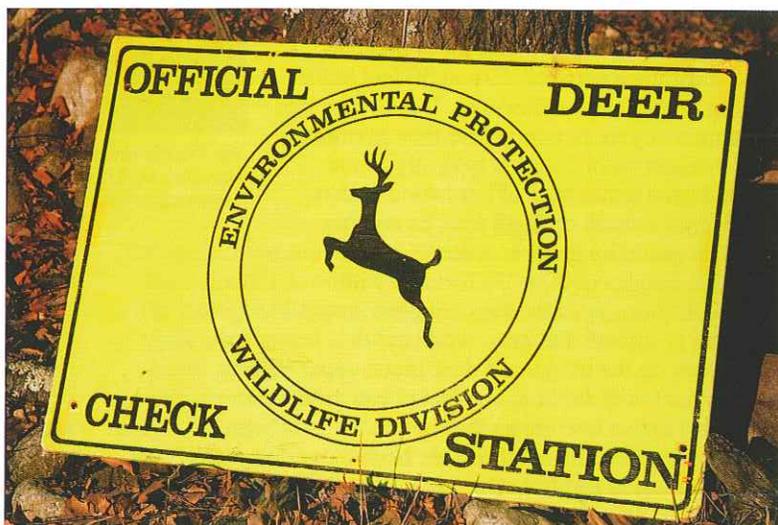
Although nothing is in the works at the moment, creating a mobile smart phone application for Connecticut hunters would be one more step in simplifying the harvest reporting process. It is clear that electronic reporting is the wave of the future. Online and telephone harvest reporting are simple and easy to do, and require much less time and effort on the part of the hunters as opposed to driving to an in-person check station. Not only does online and telephone reporting make life easier for hunters, it also makes life easier for Deer Program staff because data can be viewed immediately and it eliminates a great deal of data entry work.

Due to the ease of online and telephone reporting, harvest reporting rates are expected to increase in those states that use these reporting methods. In Connecticut, we found that when switching from the archery kill-card reporting system to the online and telephone reporting system, the reported archery harvest increased between 10% and 116% in all but two deer management zones that year. The two zones where harvest remained the same (2-3% increase) had an incentive program where hunters who reported their deer could obtain free antlerless and either-sex tags. The replacement tag system has served as an incentive for hunters to report their harvest, so little change was expected to occur. Previous research has shown that harvest incentives

increase hunter compliance for reporting harvest.

State/provincial biologists reported on the nationwide survey that hunters provided most of the harvest information they obtained. States/provinces were 100% confident in hunters providing reliable information on sex, age, number of antler points, and hours hunted.

Fewer states collected data on weight (6), deer observations (16), and antler beam measurements (7), and those that did were less confident in hunters reporting those weights (50%), deer observations (31%), and antler beam measurements (14%). States/provinces interested in obtaining this additional



Deer check stations were used for many years by the Wildlife Division to collect data. Most have been replaced by online and telephone reporting.

information may have to provide hunters with instructions on how to collect the data. This should improve reporting accuracy and increase confidence in the data. On a positive note, about half of states/provinces (54%) felt they could depend on hunters for more information than is currently being collected by the agency. Most states/provinces (89%) said the value of the information they obtained from hunters was important in making management decisions.

It cannot be stressed enough how important it is that hunters take pride in knowing that they are providing critical data that play a significant role in the management of the resource. Connecticut’s Deer Program objectives are to maintain deer populations at levels that are compatible with available habitat and land uses and for a sustained yield of deer for use by Connecticut hunters. Without hunters providing reliable data, these objectives cannot be met. Hunters are not only playing a critical role in Connecticut, but in other states/provinces as well, given the fact that most states/provinces are using hunter-based reporting and value the information they receive. This demonstrates the confidence wildlife agencies have in hunters. With greater and growing financial constraints faced by wildlife agencies, hunters will become more and more important in assisting with the management of deer populations.



# American Witch Hazel – The Connecticut Connection

As the leaves are falling in Connecticut's woodlands during late October into November, American witch hazel (*Hamamelis virginiana*) stands out among the rest of the trees and shrubs when its bright yellow flowers come into bloom. The clusters of flowers with four slender yellow petals have a spicy fragrance. This bright blast of color in the fall, after the leaves have fallen from most trees, is not the only unique feature of witch hazel. The seedpods shed their seeds at the same time the tree is flowering. These small, tannish to gray, hard capsules, which had been dormant throughout the previous winter, developed over the growing season. In autumn, the seedpods forcibly explode, making a popping sound and shooting out two shiny black seeds that can travel a distance between 10 and 30 feet before landing in the forest understory. It may take the seeds up to a year or two before they germinate.

American witch hazel is typically found in the shaded understory of hardwood forests. Considered a shrub or small tree, its arching branches generally grow as a dense, multi-stemmed clump that can reach heights of 20 to 30 feet and widths of 15 to 20 feet. The shrub form typically does not grow over 12 to 15 feet tall. The bark is smooth and gray, while the oval leaves have large wavy teeth on the margins, a dark green upper surface, and a paler green lower surface. The leaves can grow up to six inches long. This native tree grows throughout the Northeast (including Connecticut) and into southeastern North America, from Nova Scotia to Florida and from the Great Lakes to eastern Texas.

What really makes American witch hazel so interesting are the stories and uses associated with this unique plant. One story describes early European settlers observing Native Americans using forked branches from American witch hazel as dowsing or divining rods to find underground sources of water. This activity is probably where the common name witch hazel came from. "Wicke" is the Middle English word for "lively" and "wych" is from the Anglo-Saxon word for "bend." American witch hazel was probably called "wicke hazel" by early American settlers because the dowsing end of the forked branch would supposedly bend when underground water was detected by the dowser. This practice was used widely by American settlers and then exported back to Europe. Dowsing became an established feature of well-digging into the twentieth century.

Probably the best known use of the witch hazel plant is as an herbal remedy to treat insect bites, colds, muscle sprains, skin irritations, and hemorrhoids (and just about everything else in between). This remedy was originally brewed by New England's Native Americans from the bark and twigs of the witch hazel plant, and its use to treat a variety of medical maladies was adopted by the American settlers. It is at this point where the "Connecticut connection" comes in – the witch hazel industry that we know today began in Essex in the mid-1800s as the Dickinson Company. The company, now known as American Distilling, eventually moved its witch hazel distillery to East Hampton, where it produces almost the entire world's supply of witch hazel every year.

Witch hazel is harvested from New England forests in ac-



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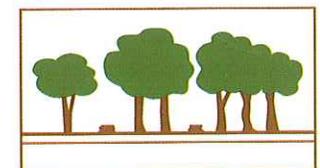
As the leaves are falling in Connecticut's woodlands during late October into November, American witch hazel stands out among the rest of the trees and shrubs when its bright yellow flowers come into bloom.

cordance with state forestry regulations to ensure protection of the environment and the continuous regeneration of witch hazel plants. Most of the harvesting begins in late autumn after the leaves have fallen and continues throughout winter while the plants are dormant and the ground is mostly frozen. After being cut, witch hazel re-sprouts vigorously, and commercially harvested plants can be harvested again every five to eight years. The stems are chipped and then distilled in the distillery to produce an extract that is used as the clear liquid witch hazel, which is considered a mild but effective astringent. Witch hazel also is an ingredient in many skin and personal hygiene products, such as hair care items, eyewash preparations, eye gels, and mouthwashes. According to American Distilling, customers and medical professionals alike recognize witch hazel as a naturally soothing and cost effective botanical ingredient. Because witch hazel is harvested as a wild crop from forested areas in New England (including Connecticut), it can be considered a Connecticut Grown product and has been certified as organic by the U.S. Department of Agriculture.

Maybe witch hazel will become your new herbal remedy, or maybe it is in a product you have been using for years. Witch hazel has surely proven the test of time, dating back to New England's Native Americans. Whether you enjoy the bright flowers in fall or take advantage of its healing powers, you now know its New England roots and its "Connecticut connection."

Some of the information for this article was obtained from the U.S. Forest Service ([www.fs.fed.us/wildflowers/plant-of-the-week/hamamelis\\_virginiana.shtml](http://www.fs.fed.us/wildflowers/plant-of-the-week/hamamelis_virginiana.shtml)) and the website for American Distilling ([www.whazel.com](http://www.whazel.com)).

## CONNECTICUT GROWN



LOCAL WOOD. LOGICAL CHOICE.

# Winter Feeding of Deer Causes More Harm than Good

Written by Andy Labonte, DEEP Wildlife Division

Every year the Wildlife Division receives multiple phone calls from concerned citizens asking how they can help deer survive through a harsh winter, with last winter certainly being no exception. Because of the many phone calls we received last winter and a recent inquiry from a concerned group of citizens, the Wildlife Division is providing the following questions and answers about feeding deer. This information can also be found on our website at [www.ct.gov/deep/wildlife](http://www.ct.gov/deep/wildlife).

## How Can Deer Survive Harsh Winters?

In fall, deer grow a winter coat and begin to store fat. The winter coat has hollow guard hairs for insulation with a finer undercoat for warmth, which help deer retain body heat and reduce energy demands. Fat reserves put on by deer in fall provide energy and heat over the winter. In addition, deer decrease their metabolic rate during winter, which reduces food requirements to about half of their summer requirements. All of these factors contribute to substantially decreased winter energy demands, which can be met with limited natural browse and supplemented with fat reserves.

In locations where a severe winter is an annual event, deer may migrate to wintering areas with thicker overhead cover and more available natural winter browse or even move into urban areas where more ornamental browse is available. These adaptations help deer survive severe winters. Even when food is abundant, deer use their fat reserves and lose weight over winter. Deer in relatively good condition can fast for several weeks without harmful effects. Some deer, especially the young and old, may die during harsher winters due to insufficient fat stores going into winter. They must compete with larger deer for available food and also may be unable to find food.

## What Are the Negative Impacts of Winter Feeding?

Deer are ruminants, meaning they have a four part stomach with microbes (bacteria) that help digest woody vegetation. Deer acquire specifically adapted microbes over a period of time that digest specific food material. For example, during spring as the green-up of vegetation slowly occurs, deer will slowly begin to use the new food source as the season progresses. When deer eat large quantities of food that have

not been part of their diet, such as grain suddenly placed out during severe winters, the specific microbes are not present to help with digestion. Deer will eat any readily available handouts during winter, thus they may fill their stomach with indigestible material. It has been documented over several years that deer have died with stomachs full of food (hay and corn) that was placed out during harsh winters as an emergency source when limited natural foods were available. Food sources rich in carbohydrates have been known to cause acidosis (grain overload) and enterotoxemia (overeating disease), which can be fatal. In addition, feeding deer during winter can artificially congregate the animals into small areas, damaging natural vegetation and habituating deer to humans, thus increasing their use of urban areas and the destruction of ornamental landscape plantings. Although bovine tuberculosis (TB) or chronic wasting disease (CWD) have not been documented in Connecticut's deer population, winter feeding may artificially congregate deer, increasing the potential for transmission of diseases.

## Why Shouldn't I Feed Deer During Winter?

Severe winters cause people to be concerned about the welfare of white-tailed deer and their ability to survive winter. Whether an individual deer can survive winter depends on its physical condition going into winter, the severity of winter,

amount and quality of winter food sources, and the animal's energy expenditures. White-tailed deer have biological adaptations that help them survive through winter. Although winter-related starvation can occur during particularly harsh winters, trying to save deer by supplementally feeding them is not the solution. DEEP discourages providing supplemental food for deer during winter. Feeding deer often makes them more vulnerable to starvation, predation, disease, and vehicle collisions.

## What Is the Difference Between Winter Feeding and Baiting?

Baiting deer during the hunting season is different than feeding deer during a harsh winter. Baiting is a technique used by deer hunters where food materials are put out to attract animals to a specific area to position them for better shot placement, potentially increasing hunter success. One of the goals of the DEEP Wildlife Division is to maintain deer population at levels compatible with available habitat and land uses. Baiting is a management option allowed only in Connecticut's urban deer management zones, where populations need to be reduced. This management option is typically introduced when deer have other food sources available to them, and deer are able to slowly acclimate to limited amounts of bait being placed on the landscape.

**The information contained in this document was modified from educational materials produced by Michigan and Wisconsin Departments of Natural Resources.**



P. J. FUSCO

# What You Need to Know About Cold Water Danger

Article and photography by Paul Fusco, DEEP Wildlife Division

Many people do not realize that cold water can kill you in a matter of minutes. In many cases it may only take a few seconds, even if you are a good swimmer. How does this happen? What does a person need to know?

Any activity that brings you out on the water in cold weather can be potentially dangerous. Whether you are duck hunting, fishing, or recreating in a canoe or kayak, you should be aware of the potential risks posed by cold shock and hypothermia, especially when water temperatures decrease after summer.

## **Cold Shock Response, Gasp Reflex, and Hypothermia**

Sudden immersion into cold water is immediately life-threatening. It can result in cold shock, which is an uncontrolled physical response that quickly leads to physical distress and incapacitation, the inhaling of water (called gasp reflex), and sudden drowning. Cold shock involves the immediate loss of a person's ability to control their breathing. With the loss of breathing control comes a series of intense involuntary gasps for air. If a person's face is underwater when this gasp reflex happens, that person will immediately breathe in water and drown.

As if this is not enough for you to be concerned about, there are other physical reactions associated with sudden immersion into cold water that will put you at risk. These would include hyperventilation, elevated blood pressure, and rapid heart rate. Water temperature does not have to be extremely cold for these things to happen, although, the colder the water, the stronger the response. Hyperventilation may lead to panic and fainting, which may then lead to drowning. Elevated blood pressure and rapid heart

rate may lead to cardiac arrest.

Cold water immersion results in an approximate death rate of 20% within the first minute. Surviving this requires remaining calm, keeping your head above water, and getting breathing under control. The cold water shock response may last up to two minutes. Over the next 30 minutes, cold incapacitation takes hold, resulting in a 50% death rate. After this stage, exhaustion and unconsciousness will soon follow.

Hypothermia results when your body temperature falls below the normal 98.6° F, progressively resulting in shivering, cold fingers and toes, muscle cramps, loss of the use of your extremities, loss of mental alertness, loss of consciousness, and finally death. Progressively worsening hypothermic disability takes affect during the first 30 minutes of immersion into cold water.

The causes of hypothermia go beyond just cold air or water temperatures, and can include contributing factors, such as improper clothing, wet clothing, dehydration, poor diet, and alcohol consumption.

## **Treatment and Awareness**

Treatments and awareness for hypothermia include:

- Remove cold and wet clothing.
- Replace wet clothing with dry clothing, a blanket, sleeping bag, or whatever insulating material is on hand.
- Use heat packs to warm parts of the body near major blood vessels, including armpits, groin, or neck.
- Use person to person skin contact body heat if possible.
- Take in small amounts of warm liquid.
- Do not consume alcohol.

- Know CPR, and be prepared to seek medical help as soon as possible.
- Use a thermal wetsuit when the water temperature is above 60° F, or a dry suit if the water is less than 60° F.
- The head is the primary heat loss part of the body, so wear head gear.
- Avoid cotton clothing; remember the saying "cotton kills."
- Dress for the water temperature, not the air temperature.
- Carry a change of dry clothing.
- If possible, have a small blanket in your pack.
- Body fat is an excellent insulator, which can delay heat loss and incapacitation significantly.
- Dress in layers.

The inner clothing layer should be a breathable and moisture wicking material that will keep your skin dry.

Mid-layers are for adding and removing, allowing you to adjust to different temperatures.

The outer layer is a shell that protects from wind and keeps your inner layers dry.

- While it is important to minimize heat loss in cold weather, it also is important not to become overheated, resulting in sweat on your skin.
- Always let someone know where you are going and when you will be back.
- Always wear a life jacket when on the water.
- Water conducts heat away from your body 25 times faster than air of the same temperature.
- No matter the conditions, you are always better off getting yourself out of the water as soon as possible.



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# Conservation Calendar

- Dec-March ..... Observe eagles at Shepaug Hydro Eagle View – More details are on page 18.
- January-April ..... Donate to the Endangered Species/Wildlife Income Tax Check-off Fund on your 2015 Connecticut Income Tax form. Learn more at [www.ct.gov/deep/EndangeredSpecies](http://www.ct.gov/deep/EndangeredSpecies).
- January 9 ..... Midwinter Eagle Survey – More details are on page 18.

## Programs at the Sessions Woods Conservation Education Center

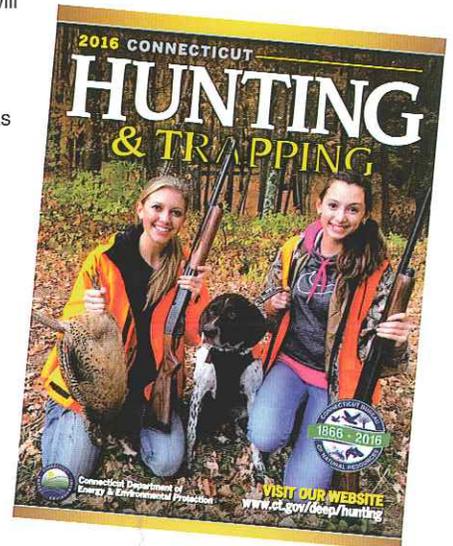
Programs are a cooperative venture between the Wildlife Division and the Friends of Sessions Woods. Please pre-register by emailing [laura.rogers-castro@ct.gov](mailto:laura.rogers-castro@ct.gov) or calling 860-424-3011 (Mon.-Fri., 8:30 AM-4:30 PM). Programs are free unless noted. An adult must accompany children under 12 years old. No pets allowed! Sessions Woods is located at 341 Milford St. (Route 69) in Burlington.

- Jan. 12 ..... **Into East Africa**, starting at 6:00 PM. Acclaimed wildlife photographer Paul Fusco will thrill the audience with beautiful scenes of the land and wildlife of East Africa. Paul visited Serengeti National Park, Ndutu, and the Ngorongoro Crater, a UNESCO World Heritage Site, in Tanzania. He also will discuss some of the important conservation issues facing wildlife in East Africa.
- Jan. 30 ..... **The Bear Reality with MWC Felicia Ortner**, starting at 1:30 PM. Master Wildlife Conservationist Felicia Ortner has been a bear enthusiast for over 30 years. Through her program, "The Bear Reality," Felicia will help dispel some of the myths associated with black bears and encourage the audience to become more bear aware.
- Feb. 16 ..... **Children's Program: Wildlife Tracks and Signs**, starting at 10:00 AM. Wildlife may not be readily seen in winter but with good observational skills, evidence of their presence can be found. The program begins indoors with a lesson on identifying wildlife tracks and then the group travels outside for a short walk to look for animal signs. Attendees can even make a wildlife track to take home. All children must be accompanied by an adult during the program.
- Feb. 27 ..... **Bald Eagles**, starting at 1:30 PM. Learn about bald eagles with Brian Hess of the DEEP Wildlife Division. Brian will talk about eagles that winter and nest in Connecticut. He also will provide insight on the history of eagles in Connecticut; how to identify juvenile and adult eagles; and additional fun facts. A pre-program potluck will be hosted by the Friends of Sessions Woods at 12:30 PM.

## Hunting Season Dates

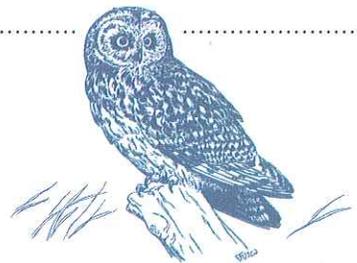
- Sept. 15-Dec. 31 ..... Deer and turkey bowhunting season on private land and state land bowhunting only areas
- Dec. 9-22 ..... Muzzleloader deer hunting season on state land.
- Dec. 9-31 ..... Muzzleloader deer hunting season on private land.
- Dec. 23-31 ..... Second portion of the turkey bowhunting season on state land.
- Jan. 1-31 ..... Deer bowhunting season on private land only in Deer Management Zones 11 and 12.
- Jan. 25-Feb. 13 ..... Special late Canada goose season in the south zone only.

Consult the current Connecticut Hunting & Trapping Guide and the 2015-2016 Migratory Bird Hunting Guide for specific season dates and details. The 2016 Connecticut Hunting & Trapping Guide will be available by mid-December. Printed guides can be found at DEEP facilities, town halls, bait and tackle shops, and outdoor equipment stores. Guides also are available on the DEEP website ([www.ct.gov/deep/hunting](http://www.ct.gov/deep/hunting)). Go to [www.ct.gov/deep/sportsmenlicensing](http://www.ct.gov/deep/sportsmenlicensing) to purchase Connecticut hunting, trapping, and fishing licenses, as well as required deer, turkey, and migratory bird permits and stamps. The system accepts payment by VISA or MasterCard.



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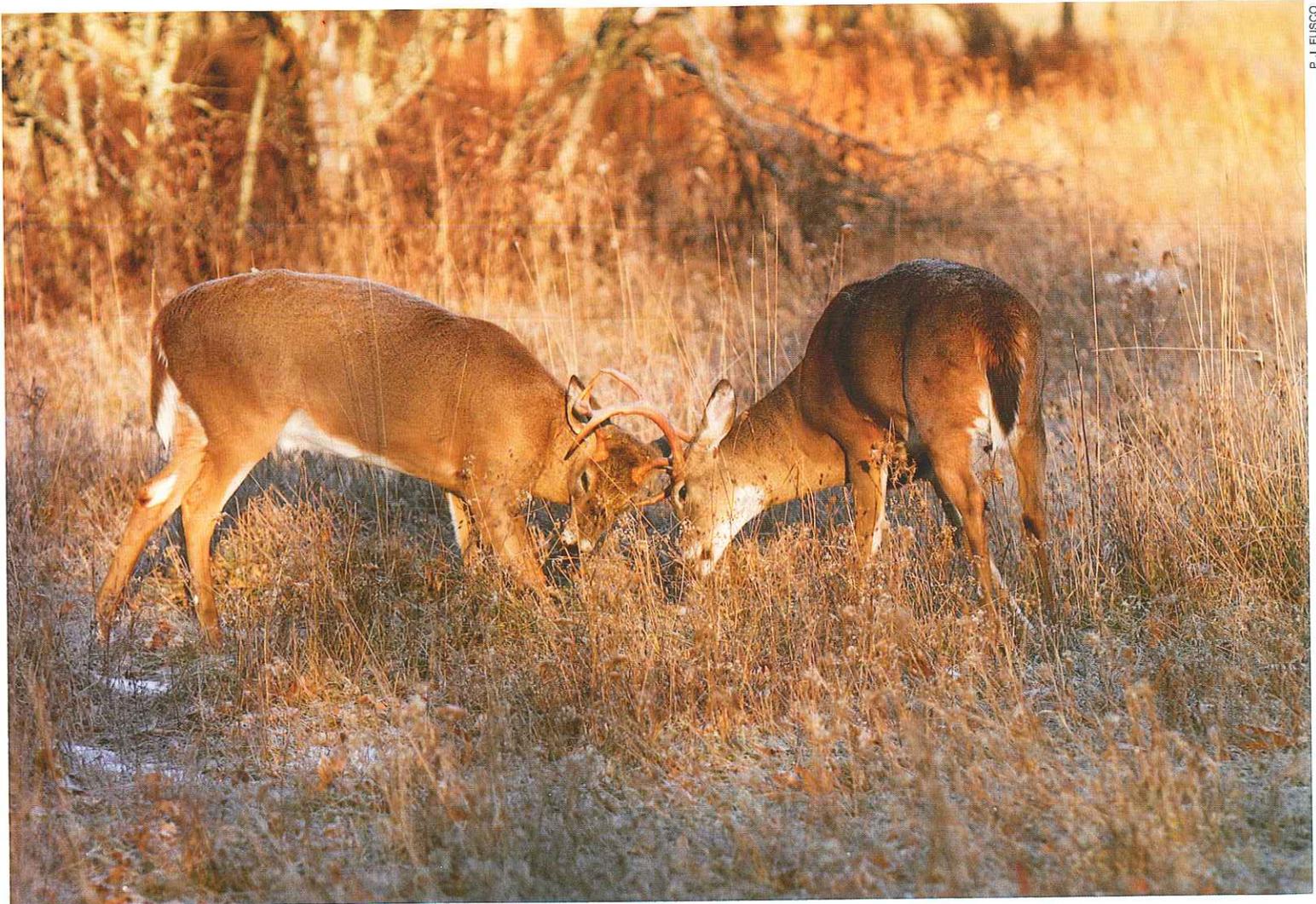
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Two young bucks square off in a test of skill and endurance.