

BOLTON PLANNING & ZONING COMMISSION
REGULAR MEETING AGENDA
7:30 PM, WEDNESDAY, January 9, 2019
BOLTON TOWN HALL, 222 BOLTON CENTER ROAD

RECEIVED
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Town Clerk of Bolton

1. Call To Order
2. Approval of Minutes: December 12, 2018 Regular Meeting Minutes
3. PUBLIC HEARINGS (begin at 7:45pm)
 - a. *CONTINUATION OF APPLICATION*: Special Permit Application for Light Manufacturing of Precision Wound Coils & Transformers, 837 Boston Turnpike, Able Coil and Electronics Co. (#PL-18-6)
4. Residents' Forum (Public Comment for items *NOT* on the agenda)
5. Staff Reports
6. Old Business
 - a. *DISCUSSION/POSSIBLE DECISION*: Special Permit Application for Light Manufacturing of Precision Wound Coils & Transformers, 837 Boston Turnpike, Able Coil and Electronics Co. (#PL-18-6)
 - b. Other
7. New Business
 - a. 2019 Annual Appointment to CRCOG Regional Planning Commission
 - b. Other
8. Correspondence
9. *Public Forum*: Discussion/Review of Possible Amendments to the Zoning Regulations (time permitting) – Section 2 & 3
10. Adjournment

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Town Clerk of Bolton

BOLTON PLANNING & ZONING COMMISSION**Regular Meeting****7:30 p.m., Wednesday, December 12, 2018****Bolton Town Hall, 222 Bolton Center Road****Minutes & Motions**

Members Present: Chairman Adam Teller, James Cropley, Christopher Davey, Arlene Fiano, Neal Kerr, Thomas Robbins and Alternates Rodney Fournier, Marilee Manning and Thomas Manning

Members Excused: Benjamin Davies (7:36pm)

Staff Present: Patrice Carson, AICP, Director of Community Development, Jim Rupert, Zoning Enforcement Officer, Yvonne Filip, Recording Secretary

1. Call to Order:

Chairman A. Teller called the meeting to order at 7:31pm.

T. Manning was seated for B. Davies until he arrived at 7:36pm.

2. Approval of Minutes: November 14, 2018 Regular Meeting Minutes

Corrections:

Item 5a, 12th line – change “Davies” to “Davey”.

Item 6a, 10th line – change “buildings” to “building’s” and end the sentence after “use”.

Item 6a, 12th line – change “prefers” to “regulations require”.

A. Fiano moved to approve the regular meeting minutes of the November 14, 2018 as corrected;

J. Cropley seconded. Vote: 5-0-2 (Davies, Kerr abstained). Motion passed.

3. Public Hearings (begin at 7:45 p.m.)

- a. Application: Special Permit Application for Light Manufacturing of Precision Wound Coils & Transformers, 837 Boston Turnpike, Able Coil and Electronics Co. (#PL-18-6)**

P. Carson read the public hearing notice. Steve Rockefeller, President of Able Coil and Electronics Co., was present along with Andrew Bushnell, Bushnell Associates.

Andrew Bushnell prepared the site plan that he described to the Commission. This is the former Barrels, Boxes, and More building which was originally constructed in 1999-2000. There is one driveway in place for the 200' x 100' metal building, six loading docks in the back, one entrance at the front. The size of the property is 31.76; approximately 2.1 acres are developed along Boston Turnpike. The rest of the parcel is wooded with pockets of wetlands and steep slope. There are two parking spaces at the front and a second parking lot in the back with the surface treatment being processed gravel, paving, and millings. Four of the docks will be cordoned off. At the front of the building thirteen parking spaces are being proposed along with two handicapped spaces. This will be 5,700 square feet of bituminous surface. A handicapped ramp will be constructed. Site work is being proposed to rework the storm water drainage including from the roof, sheet flow from the parking areas, and sheet flow from Boston Turnpike. There are proposed detention ponds at the front and rear of the building. The swale and culvert under

the driveway will have changes to better handle the run off from the roadway. There is a tree growing at the entrance of the culvert that will be removed. A catch basin will be constructed and the pipe will be extended along the drainage swale. A few other trees will be removed as the changes to the front of the building are made. The front landscaping will retain a substantial tree line. There is not a detailed landscaping plan at this time. However, a 4-foot wide landscaping berm is proposed along the parking area in front. The landscaping requirement is 1,260 sq. feet; 1,760 sq. feet is proposed. The entire parking areas will be bituminous which is not adding impervious surface. The dumpster will be in an enclosure at the rear of the building. Mr. Rockefeller added that there is erosion on the property from the water coming from Route 44. The plan is to slow the water flow down and reduce the soil that is washing under the driveway and into wetlands. No work is being proposed in wetland areas on the site. A. Bushnell has received comments from the Town Engineer that he feels are minor and can be worked through.

Pat Mancuso, Capitol Studio Architects, presented the plan for the building. The applicant will be moving the office space into this building. They will be constructing a building within the building to accommodate this. The proposed plan calls for a two-story building in the office area. The entry level will be raised gaining headspace in the basement. Plantings will be along the front and a raised planter bed on the other side. The materials for the building will be brick, thin stone, and metal siding. The design presented is likely 99% complete; some minor changes may be made. There will be no light glare going off the site. This building is a good distance from the nearest resident. There is a good wooded buffer. Signage will be limited to the far east side of the building and a ground sign at the road to include the street number.

T. Manning suggested caution in how the retreat area off the president's office is described.

A. Teller mentioned a comment included on the sewer application which is suggesting a second grinder pump is needed. S. Rockefeller interpreted this differently. The issue will be worked through to the Bolton Lakes sewer committee's satisfaction.

P. Carson reported that the original Staff report was revised to reflect the second set of plans and information received this week. Some matters that must still be addressed include a detailed landscaping plan, a detailed dumpster plan, detail of the fire lane at the front of the building, and the depth and design of the detention ponds based on test hole results, and these items cannot be conditions of a decision. P. Carson has received the sign affidavit; the applicant also submitted the certificates of mailing. The applicant is requesting a waiver of the landscaping islands in the parking areas. Staff feels the redesigned building fits in with the technical nature of this business and its surroundings in this neighborhood. The PZC does not have any issue with the reuse of the building as light industrial and agrees with staff about the design. The Commission also agreed that the landscaping islands in the parking area can be waived, per request.

A. Fiano moved to continue the public hearing on this matter to the January 9, 2018 PZC meeting in the Town Hall at 222 Bolton Center Road; **C. Davey seconded**. Vote: 6-0-1 (Cropley abstained). Motion passed.

4. Forum (Public Comment for items NOT on the agenda): No public comment

5. Staff Reports:

Rupert reported on the following administrative zoning items:

- generator and propane tank at 19 Shoddy Mill Road
- application for concrete steps at 9 Lori Road
- 500 gallon above ground LP tank at 9 Kenney Drive
- front porch at 48 Stonehenge Lane
- appeal of a decision by the Zoning Enforcement Officer pending for January

Rupert provided an update on the enforcement activities:

- continuation of efforts at 65 Shoddy Mill Road for which they are waiting for a trial date
- a minor chicken issue on Converse Drive
- driveway at 11 Hebron Road and storage of construction equipment without permits
- 82 Mount Sumner Drive has parking of construction equipment in the cul-de-sac and on the property.

A. Teller asked for more details regarding 19 Shoddy Mill Road. J. Rupert responded this is a situation involving an occupant, an owner, and a business. Bolton has received judgment against the occupant and the owner, but not the business that was undertaking some of the work. There was not enough evidence provided against the business so the application was denied by a judge. Now they await a trial date to present the supporting evidence before a judge. There has been no appearance or response from the business. Since enforcement has started the situation has gotten worse with the moving of significant amounts of earth, encroached on a neighboring property, put in two curb cuts without permits or approvals. A driveway permit was applied for without plans including an erosion and sediment control plan. At first inspection there were more than 20 unregistered motor vehicles on the property. The business is tied into this because they were one of the applicants for the driveway.

6. Old Business:

a. Discussion/Possible Decision: Special Permit Application for Light Manufacturing of Precision Wound Coils & Transformers, 837 Boston Turnpike, Able Coil and Electronics Co. (#PL-18-6).

Hearing continued – no discussion/possible decision until the hearing is closed.

b. Other: There was none

7. New Business

a. Election of Officers

J. Cropley moved to nominate A. Teller as Chairman; **C. Davey seconded**. **A. Fiano moved** to close the nominations for Chairman; **J. Cropley seconded**. Vote: 7-0-0. Motion passed. All in favor of A. Teller for Chairman Vote: 6-0-1 (Teller abstained). Motion passed.

A. Fiano moved to nominate J. Cropley as Vice Chairman and Secretary; **R. Fournier seconded**. **C. Davey moved** to close the nominations for Vice Chairman and Secretary; **N. Kerr seconded**. Vote: 7-0-0. Motion passed. All in favor of J. Cropley for Vice Chairman and Secretary Vote: 6-0-1 (Cropley abstained). Motion passed.

b. Other: T. Manning reported that the CRCOG Regional Planning Commission did not meet due to the weather.

8. Correspondence: There was none

9. Public Forum: Discussion/Review of Possible Amendments to the Zoning Regulations (time permitting) – Section 2 & 3

P. Carson and J. Rupert have reviewed Section 3. The comments are detailed in red on the copy given to the PZC. This is the General provisions section acting as a “catch all” area.

3A3 – Staff does not routinely send out discontinuance letters. A. Teller suggested this is something they should think about doing. The point of this section is for extinguishing non-conforming uses. This practice would allow the Town to terminate the non-conforming use, of which there are many throughout Bolton.

3A3a – Requirement that a non-conforming structure destroyed by fire must be reconstructed within a year of the fire. This timeframe is based on a State Statute. Most non-conformities have to do with setbacks. A variance for those can be obtained if time is running out.

3A4 – Questioned about the need to keep this in place. A. Teller thinks this should be removed.

3A6 – Staff could not find Section 7D. It could be a typographical error.

3A7 – Dealing with wetlands conservation; P. Carson suggested this is an issue for the IWC and should be removed. The IWC are the experts in wetland matters and provide guidance to the PZC. A. Teller feels the IWC protects the quality and ecology of the water, but someone could build something right to the edge of a waterway and the public would have to view this. P. Carson disagrees as the IWC would not allow this to happen. J. Rupert added that this section limits the review in regards to pollution and the ecology of waterways. A discussion ensued about this section with commissioners feeling the PZC should have some review, but not in regards to quality and ecology of the water. A. Teller suggested this section may be removed.

10. Adjournment:

J. Cropley moved to adjourn the meeting at 9:25 p.m.; **N. Kerr seconded**. Vote: 7-0-0.
Motion passed.

Respectfully Submitted,

Yvonne B. Filip

Yvonne B. Filip, Planning & Zoning Commission Recording Secretary

Please see minutes of subsequent meetings for approval of these minutes and any corrections hereto.

Carson, Patrice

From: Steven Rockefeller <srockefeller@ablecoil.com>
Sent: Wednesday, January 02, 2019 12:55 PM
To: Carson, Patrice; abushnell@sbcglobal.net
Subject: RE: Updated Plans/Information for Able Coil
Attachments: BLRWPCA Letter Dated December 10th, 2018

Hello Patrice,

Andrew will provide the updated plans shortly. Please see the attached correspondence addressing the condition to install an additional grinder pump at 837 Boston Turnpike. If you have any questions, feel free to contact me at the number listed below.

Best regards,

Steven Rockefeller
President

Able Coil & Electronics Co., Inc.
P.O. Box 9127
25 Howard Road
Bolton, CT 06043
Email: srockefeller@ablecoil.com
Tel: (860) 646-5686
Fax: (860) 646-5678

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From: Carson, Patrice <pcarson@boltonct.org>
Sent: Wednesday, January 2, 2019 12:39 PM
To: abushnell@sbcglobal.net
Cc: Steven Rockefeller <srockefeller@ablecoil.com>
Subject: Updated Plans/Information for Able Coil

Good afternoon Andrew,

I know you've been speaking with Joe Dillon, but I was wondering when you were going to submit updated plans and information that was requested to the Land Use Office for our staff review. Staff needs time to review the updated materials before the meeting on Wednesday, January 9. Please advise.

Thank you,

Patrice

*Patrice L. Carson, AICP
Consulting Director of Community Development
Town of Bolton
222 Bolton Center Road
Bolton, CT 06043
(860) 649-8066 x6114*

Carson, Patrice

From: Steven Rockefeller <rockefeller@ablecoil.com>
Sent: Tuesday, January 01, 2019 11:32 AM
To: Stille, Joyce
Cc: P. E. Joseph M. Dillon (jdillon@nlja.com); Michael Muchin
Subject: BLRWPCA Letter Dated December 10th, 2018
Attachments: 20190101104746.pdf

Hello Joyce,

Your attached letter details the condition to install a 2nd grinder pump at 837 Boston Turnpike. I met with Joe Dillon on December 14th onsite to discuss various issues including the 2nd grinder pump requirement. Joe explained that the perceived need for two grinder pumps was derived from the fact that we have two grinder pumps at 25 Howard Road. I explained that I requested two grinder pumps at our main facility because it was not practical to connect the bathroom on the upper main level to the grinder pump installed in the lower level parking lot. We had separate septic systems serving the upper and lower levels of the building. Installing a 2nd pump was the more simple solution. We have been monitoring our water usage since June of 2012. In the last few years, our average usage is 475 gallons per day. Less than 2.5 EDU. Joe indicated that the Duplex Grinder Pump installed at 837 Boston Turnpike is adequate for this average usage. Please note that we plan to move 50% of our staff to the new building, so I expect the current usage to be split between the two properties. I'm requesting that you eliminate the conditional requirement for two grinder pumps at 837 Boston Turnpike. I have copied Joe on this email. Please contact Joe or myself if you have any questions.

Best regards,

Steven Rockefeller
President

Able Coil & Electronics Co., Inc.
P.O. Box 9127
25 Howard Road
Bolton, CT 06043
Email: rockefeller@ablecoil.com
Tel: (860) 646-5686
Fax: (860) 646-5678

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Carson, Patrice

From: ANDREW BUSHNELL <abushnell@sbcglobal.net>
Sent: Thursday, December 20, 2018 11:02 AM
To: Carson, Patrice
Subject: Fw: NDDDB Request 837 Boston Turnpike Bolton, CT.
Attachments: NDDDB 201814769 Wood, Spotted & Box Turtle BMPs & Fact Sheets for Renovation of Existing Commercial Warehouse and Retail Building to Light Manufacturing and Support Office, 837 Boston Turnpike, Bolton.pdf

Patrice,

I am forwarding you the DEEP- NDDDB review for the 837 Boston Turnpike site to add to the application file. Please let me know if you wish me to supply additional paper copies.

Andrew Bushnell

----- Forwarded Message -----

From: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
To: ANDREW BUSHNELL <abushnell@sbcglobal.net>
Sent: Friday, December 14, 2018, 12:29:16 PM EST
Subject: Re: NDDDB Request 837 Boston Turnpike Bolton, CT.

Andrew,

I am sorry but I was out of the office for a few days. I have attached our DEEP-NDDDB Program letter for this project site in Bolton.

Take care,

Dawn

Dawn M. McKay

Wildlife Division

Bureau of Natural Resources

Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
P: 860.424.3592 | E: dawn.mckay@ct.gov

From: ANDREW BUSHNELL <abushnell@sbcglobal.net>
Sent: Tuesday, December 11, 2018 7:03 AM
To: DEEP Nddbrequest
Subject: Re: NDDDB Request 837 Boston Turnpike Bolton, CT.

Dawn

Have you been able to review this request. I have a Planning and Zoning public hearing tomorrow and any information you could supply would be greatly appreciated.

Andrew Bushnell

Sent from my iPhone

On Nov 19, 2018, at 11:15 AM, DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov> wrote:

Andrew,

I have received your NDDB review request application form.

Take care,

Dawn

Dawn M. McKay

Wildlife Division

Bureau of Natural Resources

Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
P: 860.424.3592 | E: dawn.mckay@ct.gov

From: ANDREW BUSHNELL <abushnell@sbcglobal.net>

Sent: Saturday, November 17, 2018 8:51 AM

To: DEEP Nddbrequest

Subject: NDDB Request 837 Boston Turnpike Bolton, CT.

To Whom it may concern

Attached is a request for Natural Diversity Data Base State Listed Species Review for the property located at 837 Boston Turnpike Bolton, CT. If you have any questions or require further information please contact me.

Andrew Bushnell PE. LS.
Bushnell Associates LLC.
Civil Engineering and Land Surveying
563 Woodbridge St.
Manchester, CT. 06042
Phone: [860-643-7875](tel:860-643-7875)
Fax: [860-643-7875](tel:860-643-7875)
Cell: [860-614-7935](tel:860-614-7935)

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Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

December 14, 2018

Andrew Bushnell
Bushnell Associates, LLC
563 Woodbridge Street
Manchester, CT 06042
abushnell@sbcglobal.net

Project: Renovation of Existing Commercial Warehouse and Retail Building to Light Manufacturing and Support Office, 837 Boston Turnpike, Bolton, Connecticut
NDDB Determination No.: 201814769

Dear Andrew Bushnell,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed Renovation of Existing Commercial Warehouse and Retail Building to Light Manufacturing and Support Office, 837 Boston Turnpike, Bolton, Connecticut. According to our records we have known extant populations of State Special Concern *Terrapene carolina carolina* (eastern box turtle), *Glyptemys insculpta* (wood turtle) and *Clemmys guttata* (spotted turtle) in the vicinity of this project site.

Eastern Box Turtle (*Terrapene c. carolina*): Eastern box turtles inhabit old fields and deciduous forests, which can include power lines and logged woodlands. They are often found near small streams and ponds. The adults are completely terrestrial but the young may be semiaquatic, and hibernate on land by digging down in the soil from October to April. They have an extremely small home range and can usually be found in the same area year after year. Eastern box turtles have been negatively impacted by the loss of suitable habitat. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated. Reducing the frequency that motorized vehicles enter box turtle habitat would be beneficial in minimizing direct mortality of adults.

Wood turtle: Wood turtles require riparian habitats bordered by floodplain, woodland or meadows. They hibernate in the banks of the river in submerged tree roots. Their summer habitat includes pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. This species has been negatively impacted by the loss of suitable habitat.

Spotted Turtle:

Spotted Turtles are semi-aquatic in nature, which means they live both on terrestrial land and water. This species lives in several types of habitats including bogs, swamps, fens, woodland streams, wet pastures and marshes. They sometimes also inhabit brackish streams influenced by tides. These reptiles always live in areas with slow moving water and soft soil. Spotted turtles are active hunters and they mainly hunt underwater they sometimes move onto terrestrial lands for hunting. Habitat destruction, degradation or alteration and fragmentation all threaten spotted turtle populations. Turtles are also particularly vulnerable to any activity that consistently reduces adult survivorship. The greatest concern during projects occurring in spotted turtle habitat are turtles being run over and crushed by mechanized equipment. Reducing the frequency that motorized vehicles enter spotted turtle habitat would be beneficial in minimizing direct mortality of adults.

Recommended Protection Strategies for Turtles:

Work normally should occur when these turtles are active (April 1st to October 30th). Conducting work while the turtle is active will allow the animal to move out of harm's way and minimize mortality to hibernating individuals. I recommend the additional following protection strategies in order to protect these turtles:

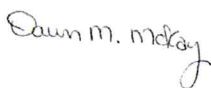
- Have a biologist familiar with turtles on site to ensure these protection guidelines remain in effect and prevent turtles from being run over when moving heavy equipment. This is especially important in the month of June when turtles are selecting nesting sites.
- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance.
- Exclusionary fencing must be at least 20 in tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through. Do not use plastic or netted silt-fence.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species, and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal pools.
- The Contractor and consulting biologist must search the work area each morning prior to any work being done.
- When felling trees adjacent to brooks and streams please cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- Avoid and limit any equipment use within 50 feet of streams and brooks.
- Any confirmed sightings of box, wood or spotted turtles should be reported and documented with the NDDDB (nddbrequestdep@ct.gov) on the appropriate special animal form found at (http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641)

If these protection strategies are followed then the proposed activities will lessen the impact on these state-listed species. This determination is good for two years. Please re-submit an NDDDB Request for Review if the scope of work changes or if work has not begun on this project by December 14, 2020.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEEP for the proposed site.

Sincerely,



Dawn M. McKay
Environmental Analyst 3

WILDLIFE IN CONNECTICUT

STATE SPECIES OF SPECIAL CONCERN

Eastern Box Turtle

Terrapene carolina carolina

Description

The eastern box turtle is probably the most familiar of the 8 species of turtles found in Connecticut's landscape. It is known for its high-domed carapace (top shell). The carapace has irregular yellow or orange blotches on a brown to black background that mimic sunlight dappling on the forest floor. The plastron (under shell) may be brown or black and may have an irregular pattern of cream or yellow. The length of the carapace usually ranges from 4.5 to 6.5 inches, but can measure up to 8 inches long. The shell is made up of a combination of scales and bones, and it includes the ribs and much of the backbone.

Each individual turtle has distinctive head markings. Males usually have red eyes and a concave plastron, while females have brown eyes and a flat plastron. Box turtles also have a horny beak, stout limbs, and feet that are webbed at the base. This turtle gets its name from its ability to completely withdraw into its shell, closing itself in with a hinged plastron. Box turtles are the only Connecticut turtle with this ability.

Range

Eastern box turtles are found throughout Connecticut, except at the highest elevations. They range from southeastern Maine to southeastern New York, west to central Illinois, and south to northern Florida.

Habitat and Diet

In Connecticut, this terrestrial turtle inhabits a variety of habitats, including woodlands, field edges, thickets, marshes, bogs, and stream banks. Typically, however, box turtles are found in well-drained forest bottomlands and open deciduous forests. They will use wetland areas at various times during the season. During the hottest part of a summer day, they will wander to find springs and seepages where they can burrow into the moist soil. Activity is restricted to mornings and evenings during summer, with little to no nighttime activity, except for egg-



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laying females. Box turtles have a limited home range where they spend their entire life, ranging from 0.5 to 10 acres (usually less than 2 acres).

Box turtles are omnivorous and will feed on a variety of food items, including earthworms, slugs, snails, insects, frogs, toads, small snakes, carrion, leaves, grass, berries, fruits, and fungi.

Life History

From October to April, box turtles hibernate by burrowing into loose soil, decaying vegetation, and mud. They tend to hibernate in woodlands, on the edge of woodlands, and sometimes near closed canopy wetlands in the forest. Box turtles may return to the same place to hibernate year after year. As soon as they come out of hibernation, box turtles begin feeding and searching for mates.

The breeding season begins in April and may continue through fall. Box turtles usually do not breed until they are about 10 years old. This late maturity is a result of their long lifespan, which can range up to 50 to even over 100 years of age. The females do not have to mate every year to lay eggs as they can store sperm for up

to 4 years. In mid-May to late June, the females will travel from a few feet to more than a mile within their home range to find a location to dig a nest and lay their eggs. The 3 to 8 eggs are covered with dirt and left to be warmed by the sun. During this vulnerable time, skunks, foxes, snakes, crows, and raccoons often raid nests. Sometimes, entire nests are destroyed. If the eggs survive, they will hatch in late summer to early fall (about 2 months after being laid). If they hatch in the fall, the young turtles may spend the winter in the nest and come out the following spring.

As soon as the young turtles hatch, they are on their own and receive no care from the adults. This is a dangerous time for young box turtles because they do not develop the hinge for closing into their shell until they are about 4 to 5 years old. Until then, they cannot entirely retreat into their shells. Raccoons, skunks, foxes, dogs, and some birds will prey on young turtles.

Conservation Concerns

The eastern box turtle was once common throughout the state, mostly in the central Connecticut lowlands. However, its distribution is now spotty, although where found, turtles may be locally abundant. Because of the population decline in Connecticut, the box turtle was added to the state's List of Endangered, Threatened, and Special Concern Species when it was revised in 1998. It is currently listed as a species of special concern. The box turtle also is protected from international trade by the 1994 CITES treaty. It is of conservation concern in all the states where it occurs at its northeastern range limit, which includes southern New England and southeastern New York.

Many states have laws that protect box turtles and prohibit their collection. In Connecticut, eastern box turtles **cannot** be collected from the wild (DEP regulations 26-66-14A). Another regulation (DEP regulations 26-55-3D) "grandfathers" those who have a **box turtle collected before 1998**. This regulation limits possession to a single turtle collected before 1998. These

regulations provide some protection for the turtles, but not enough to combat some of the even bigger threats these animals face. The main threats in Connecticut (and other states) are loss and fragmentation of habitat due to deforestation and spreading suburban development; vehicle strikes on the busy roads that bisect the landscape; and indiscriminate (and now illegal) collection of individuals for pets.

Loss of habitat is probably the greatest threat to turtles. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated.

Adult box turtles are relatively free from predators due to their unique shells. The shell of a box turtle is extremely hard. However, the shell is not hard enough to survive being run over by a vehicle. Roads bisecting turtle habitat can seriously deplete the local population. Most vehicle fatalities are pregnant females searching for a nest site.

How You Can Help

- *Leave turtles in the wild. They should never be kept as pets. Whether collected singly or for the pet trade, turtles that are removed from the wild are no longer able to be a reproducing member of a population. Every turtle removed reduces the ability of the population to maintain itself.*
- *Never release a captive turtle into the wild. It probably would not survive, may not be native to the area, and could introduce diseases to wild populations.*
- *Do not disturb turtles nesting in yards or gardens.*
- *As you drive, watch out for turtles crossing the road. Turtles found crossing roads in June and July are often pregnant females and they should be helped on their way and not collected. Without creating a traffic hazard or compromising safety, drivers are encouraged to avoid running over turtles that are crossing roads. Also, still keeping safety precautions in mind, you may elect to pick up turtles from the road and move them onto the side they are headed. Never relocate a turtle to another area that is far from where you found it.*
- *Learn more about turtles and their conservation concerns. Spread the word to others on how they can help Connecticut's box turtle population.*



State of Connecticut
Department of Environmental Protection
Bureau of Natural Resources
Wildlife Division
www.ct.gov/dep



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WILDLIFE IN CONNECTICUT

STATE SPECIES OF SPECIAL CONCERN

Wood Turtle

Glyptemys insculpta

Background

Wood turtles may be found throughout Connecticut, but they have become increasingly rare due to their complex habitat needs. Wood turtles also have become more scarce in Fairfield County due to the fragmentation of suitable habitat by urban development.

Range

Wood turtles can be found across the northeastern United States into parts of Canada. They range from Nova Scotia through New England, south into northern Virginia, and west through the Great Lakes region into Minnesota.

Description

The scientific name of the wood turtle, *Glyptemys insculpta*, refers to the deeply sculptured or chiseled pattern found on the carapace (top shell). This part of the shell is dark brown or black and may have an array of faint yellow lines radiating from the center of each chiseled, pyramid-like segment due to tannins and minerals accumulating between ridges. These segments of the carapace, as well as those of the plastron (bottom shell), are called scutes. The carapace also is keeled, with a noticeable ridge running from front to back. The plastron is yellow with large dark blotches in the outer corners of each scute. The black or dark brown head and upper limbs are contrasted by brighter pigments ranging from red and orange to a pale yellow on the throat and limb undersides. Orange hues are most typical for New England's wood turtles. The hind feet are only slightly webbed, and the tail is long and thick at the base. Adults weigh approximately 1.5 to 2.5 pounds and reach a length of 5 to 9 inches.



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Habitat and Diet

Wood turtles use aquatic and terrestrial habitats at different times of the year. Their habitats include rivers and large streams, riparian forests (adjacent to rivers), wetlands, hayfields, and other early successional habitats. Terrestrial habitat that is usually within 1,000 feet of a suitable stream or river is most likely used. Preferred stream conditions include moderate flow, sandy or gravelly bottoms, and muddy banks.

Wood turtles are omnivorous and opportunistic. They are not picky eaters and will readily consume slugs, worms, tadpoles, insects, algae, wild fruits, leaves, grass, moss, and carrion.

Life History

From late spring to early fall, wood turtles can be found roaming their aquatic or terrestrial habitats. However, once temperatures drop in autumn, the turtles retreat to rivers and large streams for hibernation. The winter

is spent underwater, often tucked away below undercut riverbanks within exposed tree roots. Dissolved oxygen is extracted from the water, allowing the turtle to remain submerged entirely until the arrival of spring. Once warmer weather sets in, the turtles will become increasingly more active, eventually leaving the water to begin foraging for food and searching for mates. Travel up or down stream is most likely, as turtles seldom stray very far from their riparian habitats.

Females nest in spring to early summer, depositing anywhere from 4 to 12 eggs into a nest dug out of soft soil, typically in sandy deposits along stream banks or other areas of loose soil. The eggs hatch in late summer or fall and the young turtles may either emerge or remain in the nest for winter hibernation. As soon as the young turtles hatch, they are on their own and receive no care from the adults.

Turtle eggs and hatchlings are heavily preyed upon by a wide variety of predators, ranging from raccoons to birds and snakes. High rates of nest predation and hatchling mortality, paired with the lengthy amount of time it takes for wood turtles to reach sexual maturity, present a challenge to maintaining sustainable populations. Wood turtles live upwards of 40 to 60 years, possibly more.

Conservation Concerns

Loss and fragmentation of habitat are the greatest threats to wood turtles. Many remaining populations in Connecticut are low in numbers and isolated from one another by human-dominated landscapes. Turtles forced to venture farther and farther from appropriate habitat

to find mates and nesting sites are more likely to be run over by cars, attacked by predators, or collected by people as pets.

Other sources of mortality include entanglements in litter and debris left behind by people, as well as strikes from mowing equipment used to maintain hayfields and other early successional habitats.

The wood turtle is imperiled throughout a large portion of its range and was placed under international trade regulatory protection through the Convention on International Trade in Endangered Species (CITES) in 1992. Wood turtles also have been included on the International Union for Conservation of Nature's (IUCN) Red List as a vulnerable species since 1996. They are listed as a species of special concern in Connecticut and protected by the Connecticut Endangered Species Act.

How You Can Help

- *Conserve riparian habitat. Maintaining a buffer strip of natural vegetation (minimum of 100 feet) along the banks of streams and rivers will protect wood turtle habitat and also help improve the water quality of the stream system. Stream banks that are manicured (cleared of natural shrubby and herbaceous vegetation) or armored by rip rap or stone walls will not be used by wood turtles or most other wildlife species.*
- *Do not litter. Wood turtles and other wildlife may accidentally ingest or become entangled in garbage and die.*
- *Leave turtles in the wild. They should never be kept as pets. Whether collected singly or for the pet trade, turtles that are removed from the wild are no longer able to be a reproducing member of a population. Every turtle removed reduces the ability of the population to maintain itself.*
- *Never release a captive turtle into the wild. It probably would not survive, may not be native to the area, and could introduce diseases to wild populations.*
- *As you drive, watch out for turtles crossing the road. Turtles found crossing roads in June and July are often pregnant females. They should **not** be collected but can be helped on their way. Without creating a traffic hazard or compromising safety, drivers are encouraged to avoid running over turtles that are crossing roads. Also, still keeping safety precautions in mind, you may elect to pick up turtles from the road and move them onto the side in the direction they are headed. Never relocate a turtle to another area that is far from where you found it.*
- *Learn more about turtles and their conservation concerns, and educate others.*
- *If you see a wood turtle, leave it in the wild, take a photograph, record the location where it was seen, and contact the Connecticut Department of Environmental Protection (DEP) Wildlife Division at dep.wildlife@ct.gov, or call 860-424-3011 to report your observation.*





Spotted Turtle



Scientific Name: *Clemmys gutata*
Size: 3 – 5 inches (8-12 cm) in length
CT NDDDB Status: Species of Special Concern




Habitat Type: Spotted Turtles are semi-aquatic in nature, which means they live both on terrestrial land and water. This species lives in several types of habitats including bogs, swamps, fens, woodland streams, wet pastures and marshes. They sometimes also inhabit brackish streams influenced by tides. These reptiles always live in areas with slow moving water and soft soil.

Colorations:

- Their carapace is black in color and is spotted with bright yellow marks
- Their plastron, bottom shells, are yellow to orange-yellow in color with a black spot on each scute
- They have smooth upper shells or carapaces. The upper shells are not marked with a central ridge or “keel”. There is one yellow spot on each section of the hatchling’s carapace

Characteristics:

- Small semi-aquatic species.
- Each adult spotted turtle can have up to 100 spots
- The lifespan of this species ranges between 25 to 50 years
- The Turtles of this species are active hunters and they mainly hunt underwater. But, some researches show that they sometimes move onto terrestrial lands for hunting
- Spotted Turtles hibernate on land or in water during the extremely hot and cold months

Symbol	Plant Name	Size	Qty
	Juniper Blue Star	2 gallon	5
	Purple Leaf Plum	15 gallon	1
	Baby Blue Spruce	3'	2
	Cotoneaster little Gem	2 gallon	3
	Astible Vision in Pink	1 gallon	12
	Feather Reed Ornt. Grass	2 gallon	10
	Rhododendron Roseum	3 gallon	5
	Hydrangea Macrop. Blue	2 gallon	3
	Hallo Redtwig dogwood	5 gallon	3
	Stella Day Lilies	1 gallon	12
	Hosta Blue Angle	1 gallon	6
	Rose Pink Knock Out	2 gallon	3

