

**State Wildlife Action Plan Characterization:  
CONNECTICUT**



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## Introduction

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The state of Connecticut is blessed with an incredibly diverse landscape. On the southern border is the coastal zone, formed by the Long Island Sound. To the northwest are the Taconic Mountains. Wedged between are rolling hills, ridges, forested pockets of land, and some of the finest trout streams in the Northeast. While Connecticut is the third smallest state in the nation (5,090 square miles), the state's 3.5 million people make it the fourth most densely populated state in the country.<sup>1</sup> This high concentration of people is matched by a correspondingly large number of wildlife species.

Connecticut's Comprehensive Wildlife Conservation Strategy (CWCS) lists 84 species of mammals, 335 species of birds, 49 species of reptiles and amphibians, 168 species of fish and an estimated 20,000 species of invertebrates that make up the animal community of Connecticut. Of this total, 475 species have been designated species of greatest conservation need (GCN). The numbers include 27 mammals, 148 birds, 30 reptiles and amphibians, 74 fish and 196 invertebrates.<sup>2</sup> Not surprisingly, the biggest threat facing these animals is loss of habitat and land fragmentation due to continued development and growth.

The stated goals of the state's Comprehensive Wildlife Conservation Strategy are to:

1. Address the broad array of all fish, mammals, birds, reptiles, amphibians and invertebrate species.
2. Use available funding to address the species in greatest need of conservation and their habitats.
3. Identify actions needed to conserve species diversity and keep common species common.
4. Build upon past efforts to conserve all species of wildlife.
5. Encourage the creation of partnerships with conservation organizations at local, state and regional levels to enhance opportunities for implementation of actions to conserve wildlife.

This paper offers a review of Connecticut's CWCS according to the eight required elements stipulated by Congress. This information was gleaned from a close analysis of the plan

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<sup>1</sup> Connecticut Department of Environmental Protection (DEP), Connecticut's Comprehensive Wildlife Conservation Strategy (CWCS), (October, 2005), 1-1.

<sup>2</sup> CWCS, p. xii.

and the benefit of written comments from the plan coordinator. The paper ends with an update on implementation progress derived from telephone interviews with the plan coordinator, agency staff, and non-agency people who assisted with the development of the plan and are engaged in implementation. Connecticut and its many partners have prepared a formidable and thorough document to guide conservation in the state over the next decade and should be commended. More importantly, the state is using the plan to make significant progress on the ground.

## **1. Identification of Species of Greatest Conservation Need (SGCN)**

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To identify species of greatest conservation need, Connecticut organized teams of experts into taxonomical technical committees as follows: avian, fish, reptile, invertebrate, and mammal.<sup>3</sup> Members of these committees were drawn from the Department of Environmental Protection (DEP), other state agencies, universities, and environmental organizations.

Starting in 2003, these committees began reviewing information obtained from the most current DEP Bureau of Natural Resources databases. Standardized rankings from the US Fish & Wildlife Service (FWS) and NatureServe were used to supplement existing lists of both threatened and species of greatest conservation need. These species were ranked based on the best available information about species abundance and distribution at state, national, and global levels.

A detailed profile was completed for each species and then an additional rating system based on 15 categories was applied to every species to determine the level of risk. The criteria were listed as: abundance, needs research, imperiled, declining, endemic, disjunct, vulnerable, small at-risk population, limited dispersal, fragmented/isolated, experts concerned, focal species, indicator species, responsibility species (species for which the state may have a significant percentage of the global population (e.g. salt marsh sharp-tailed sparrow or the blue-winged warbler), and congregates (species that congregate in very large numbers at certain times of year and as a result a single threat could impact hundreds or thousands of individuals).<sup>4</sup> The CWCS lists wildlife in a summary table and then by each taxonomic group.<sup>5</sup>

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<sup>3</sup> CWCS, p. iv,

<sup>4</sup> CWCS, 1-25.

<sup>5</sup> CWCS, 1-1.

Taxa	Species Found in CT	State-Listed	Federally Listed	Imperiled Range-wide
Mammals	84	11	3	1
Birds	335	50	4	0
Reptiles and Amphibians	49	18	5	2
Fish	168	7	1	0
Invertebrates	20,000 est.	170	4	5
<b>Total</b>	<b>&gt;20,636</b>	<b>256</b>	<b>17</b>	<b>8</b>

More information on selection of species of greatest conservation need can be found in Chapter 1 and Appendices 1a, 1b, 1c, 1d of the CWCS.

## **2. Identification of Key Habitat and Community Types**

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In identifying key habitats, the CWCS begins by offering a detailed description of the state’s landscape and waterscape. Connecticut has 5,830 miles of rivers and streams, 2,300 lakes, ponds and reservoirs, and 152,000 acres of wetland and 17,500 acres of estuarine tidal wetlands (not included was information about how the amount of wetlands has changed over time). The coastline along the Long Island Sound stretches for 612 miles.<sup>6</sup>

The DEP uses a classification of 12 habitats and 32 ecological communities to segment the state’s varied landscape. These habitats correspond with the most current ecoregion classification used to describe land in Connecticut. This ecoregion system consists of eight classifications:

- Berkshire Vermont Uplands
- Taconic Mountains
- Western Connecticut [Hudson Highlands]
- Connecticut Valley [Lower Connecticut River Valley]
- Eastern Connecticut [Southern New England Coastal Hills and Plains]
- Connecticut Coast [Southern New England Coastal Lowlands]
- Worcester/Monadnock Plateau

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<sup>6</sup> CWCS, 2-8.

- Long Island Sound

The DEP assembled a brain trust of plant ecologists, professional foresters, and wildlife habitat specialists to review existing information and accurately describe the state of habitats in Connecticut.<sup>7</sup> The culmination of their work was to rate the landscapes in terms of “excellent, good, fair, or poor.” The maps that are included in the CWCS were drawn from an eco-region study conducted in 1996. More recent eco-region designation maps were listed as “in press” at the time of the CWCS printing. Connecticut’s GIS databases lacked current information that showed the geographic distribution of species of greatest conservation need.<sup>8</sup> Furthermore, for many habitats, sub-habitats, and vegetative communities, little quantitative data exists on their condition.<sup>9</sup> Addressing these gaps in habitat information has been a major focus of implementation.

More information on habitats of concern is available in Chapter 2, 4, and Appendix 2b of the CWCS.

### **3. Identification of Threats to Species and Habitats**

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Prior to the completion of the CWCS in October 2005, Connecticut had never conducted a formal statewide threat analysis for wildlife and habitat. The CWCS planning team reviewed over 100 existing local and regional conservation programs and plans developed by the state agencies and various stakeholder organizations. DEP staff and the taxonomic advisory committee evaluated and prioritized each threat according to the state’s 12 designated key habitats. In total, 45 threats were identified.

The CWCS groups common threats for all GCN species and then provides sub group threats depending on whether the species is a terrestrial, marine, or freshwater species. The key threat is loss and degradation of wildlife habitat from development and other human impacts. Since 1985, Connecticut has lost 18 acres a day to high-density development.<sup>10</sup> This rapid development has in turn caused serious forest fragmentation both in land cover and ownership. The CWCS states that 84% of existing forestland is privately owned by approximately 102,000

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<sup>7</sup> Written comments from the Plan Coordinator, December 2007.

<sup>8</sup> CWCS, 4-6.

<sup>9</sup> CWCS, 4-7.

<sup>10</sup> CWCS, 3-4.

people.<sup>11</sup> This high level of private ownership makes private landowner engagement a priority for Connecticut.

Overall, the information in the threats section is presented at a general level which was intentional according to the plan coordinator. Common threats to species were combined to avoid having a long redundant list of species specific threats. It would have been helpful to have more information about the threats, but it is clear that the CWCS planning team invested much more energy and emphasis on conservation actions.

More information on conservation threats, including threat profiles, is available in Chapter 3 of the CWCS.

## **4. Description of Conservation Actions for Species and Habitats**

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Connecticut's conservation action section of the CWCS is the longest section of the report, a full 89 pages. The section is organized around the 12 habitats introduced in chapter 2:

1. upland woodland and shrub
2. upland forest
3. upland herbaceous
4. forested inland wetland
5. shrub inland wetland
6. herbaceous inland wetland
7. sparsely vegetated inland wetland
8. tidal wetland
9. freshwater aquatic
10. estuarine aquatic
11. unique of manmade habitats
12. intensively managed habitats

Each habitat is profiled according to description, location, and condition. A table of GCN species prioritized by a “most important, very important, important” designation follows the habitat description. The next section presents a list of threats followed by the conservation actions. These are divided according to Research/Survey/Monitoring needs and by Priority Conservation actions. All of these designations are informed by the 100 existing conservation and management plans. The conservation actions are organized between statewide and species-

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<sup>11</sup> CWCS, 3-5.

specific actions as well as habitat-focused actions. Included in this chapter is a summary table of primary statewide conservation actions that have broad impact across all species and habitats. An example of one of these actions is to “evaluate the impact of invasive plant and animal species on GCN species and their habitats and develop/implement applicable management strategies.” Each conservation action includes a performance measure.

The CWCS states that there is “no implied order of importance in the numbering of conservation actions or research needs because each is considered to be of high priority.”<sup>12</sup> The explanation goes on to state that “iterative culling of numerous low and medium ranked actions left only those needs that were identified as highest priority and most feasible.”<sup>13</sup> Actions for the major threats appear in Appendix 3. Appendix 4 provides a daunting 179 pages of actions for species categories.

The plan coordinator explained that the high priority actions outlined in the body of the text are not ranked numerically on purpose. Many of the people involved in plan development were concerned that such a numerical ranking would be biased toward species for which more data exists or based on their public perception. This was a major concern of the invertebrate experts who were very concerned that a small, non-descript beetle would rank lower than a brightly colored bird. Additionally, the planning team agreed that establishing a ranked order within the “high” category could lead to implementation actions occurring in order of importance which might not be practical or advantageous.

Rather, the planning team agreed that all the threats were of high importance and that implementation of any of them in any order would greatly contribute to conservation goals. According to the plan coordinator, this approach provides greater flexibility and makes it much easier for actions to be implemented if new partners come forward or new funding opportunities are presented. Adopting this approach has contributed to the success Connecticut has already experienced both in implementing new actions and in engaging groups new to the conservation arena.<sup>14</sup> On the downside, the listing approach presents the reader with a formidable list of priority actions with little guidance as to what is most important.

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<sup>12</sup> CWCS, 4-1.

<sup>13</sup> CWCS, 4-1.

<sup>14</sup> Comments for Plan Coordinator, December 2007.

The CWCS plan acknowledges that implementing the actions represents “an extremely ambitious challenge” for the DEP and the Bureau of Natural Resources.<sup>15</sup> The state intends to maximize all possible relationships with conservation partners at the federal, state and local levels to begin to address the actions.

In terms of implementation, the DEP as a whole is responsible for actions that are comprehensive or state-wide in nature. The Bureau of Natural Resources manages more species-specific actions. The DEP chose not to list any specific partners linked to actions to avoid limiting, even if only by implication, the possibilities to just those groups named. The DEP did not want to discourage a potential partner simply because they did not know they existed or because they had not previously been engaged in conservation work.

In appendix 4, the CWCS compiles and prioritizes conservation actions and threats from existing state, regional, national, and international conservation plans. These actions were drawn from sources dating from as early as 1984 (the Marine Resources Management Plan for the State of Connecticut) all the way to a 2003 report (Pew Oceans Commission). The actions are sorted by the categories of marine fish, mammals, birds, herpetofauna, fish, and invertebrates. Within each species category, the actions are divided into three sections: species focused conservation, habitat-focused conservation, and “other” conservation actions. This approach to dividing the actions into categories presents a manageable way to organize such a comprehensive list of actions.

Only the marine actions are ranked as high (H), medium (M), and low (L) priorities. The plan coordinator explained that the CWCS is a strategic document, not an operational plan and stressed that there is a big difference between the two. Therefore, the threats do not include a timetable for action, designated responsible party, or estimated budget. The coordinator noted that operational details are included in specific grant proposals that are prepared and submitted to the US Fish and Wildlife. In the future, Congress may want to be more explicit in requiring states to create some type of modified action plan.

More information on conservation actions is available in Chapter 4 of the CWCS and appendix 4.

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<sup>15</sup> CWCS, 4-2.

## **5. Proposed Plans for Monitoring Species, Habitats and Conservation Actions**

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The CWCS states that monitoring will be addressed at the international, national, regional, state, and local levels.<sup>16</sup> Connecticut will rely on many existing monitoring programs already in place as it considers:

### **1. Biological monitoring**

Biological monitoring will take place at three levels: individual species, guilds, or natural communities. Habitat monitoring will occur from the regional level down to specific vegetative communities.

### **2. Gauging the effectiveness of conservation actions**

The DEP plans to complete an annual summary that describes what conservation actions have been taken and what gains have been made. The success of implementing conservation actions will be measured by the improved status of the species and by increased acreage under conservation. One challenge the state must manage is a general lack of rigorous baseline information from which to gauge progress.

### **3. Adaptive management**

Under the adaptive management section, the DEP will work with key stakeholders and (unnamed) implementation partners to review the progress on the conservation actions and make changes to the approaches based on new information. Not made clear is how the state will track and measure the degree of frequency of use of the plan.

More information on monitoring is located in Chapter 5 of the CWCS.

## **6. Procedures for Strategy Review**

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Connecticut outlined a three level approach to reviewing its wildlife action plan. In the near term, the state will follow the annual performance requirements required for all state wildlife plans. A more comprehensive review will be conducted on a two-year basis. For this

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<sup>16</sup> CWCS, 5-1.

review, the state will address species or habitat responses based on near term management activities. Any new survey material will be incorporated into the plan.

Five year updates will coincide with the Department of Environment's mandatory update on Connecticut's Endangered Species Act.<sup>17</sup> The next endangered species review period is scheduled for 2007-08. Because this date is so close to the time when the plan was implemented, the goal for the first review period is to develop a framework that will facilitate a simultaneous review of both the GCN and state-listed species in the future.

After a full ten years, the state will review the entire CWCS and develop an updated action plan. This review will draw on input from the public and be conducted using similar methods to those used in the original development of the plan. The DEP has hired a database manager who is collecting information on habitats and actions and compiling this information into an Access database.<sup>18</sup> This database will help the state evaluate and build on the 2005 version of the plan.

More information on strategy review is available in Chapter 6 of the CWCS.

## **7. Coordination with Federal, State and Tribal Agencies**

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Ongoing coordination with the federal, state, local, and tribal partners is considered a critical aspect of the CWCS.<sup>19</sup> The Bureau of Natural Resources will take the lead on working with this wide range of stakeholders on implementation and review of the strategy.

In the creation of the CWCS, the Department of Environmental Protection informed and engaged a wide range of actors in plan development. Meetings were held with key local, state, federal and tribal leaders to get input at each step of the strategy's development. Follow up was conducted on a regular basis between larger group meetings. These meetings helped the state and its stakeholders reach consensus on which are the species of greatest conservation need, the most pressing threats and research needs, and most needed actions.<sup>20</sup>

The plan coordinator commented on the state's engagement with local municipalities. "Early on in the planning process, we passed out a questionnaire at local planning workshops

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<sup>17</sup> CWCS, 5-4.

<sup>18</sup> Beth Moran. Telephone interview with author, October 12, 2007. Ann Arbor, MI.

<sup>19</sup> CWCS, 7-4.

<sup>20</sup> Jenny Dickson telephone interview. Telephone interview with author, October 19, 2007. Ann Arbor, MI.

that gave us input and feedback from local government bodies.”<sup>21</sup> This gave the planning team a sense of municipalities’ concerns and in turn informed officials about the scope and purpose of the CWCS.

“We actually talked with other states during the planning process, and through our technical committees we kept pretty well-informed about the priorities of other states. We had a number of meetings at the regional level where people talked about the plans and especially about GCN species. How we thought about modifying habitat criteria, in part depended on what our neighbors were doing.”<sup>22</sup>

According to the plan coordinator, “The staff at FWS Region 5 gave the state incredible support throughout the planning, and made sure that we had the necessary resources available to write the CWCS.”<sup>23</sup> Region 5 staff helped compile critical information on the bird conservation plans by sorting through volumes of data and existing resources. Now that the various state plans are complete, the northeast CWCS coordinators continue to have regular communication. There is also the list serve established by AWFA for plan coordinators from other states to communicate with each other.

“We just had a regional meeting on early successional habitat planning and ways that CT, MA, and RI, and to a certain extent southern NY could work together to move some of those issues forward and implement aspects of our strategy. That is one example of a number of different initiatives. A lot of the fishery folks are having similar discussions,” commented the Plan coordinator.<sup>24</sup>

More information on key partners can be found in chapter 7 of the CWCS. Also, a detailed list of all partners and descriptions of their programs can be found in Appendix 7a. Included in Appendix 7b are survey results from regional workshops. And in Appendix 8a is a detailed list of stakeholders, collaborators, and experts.

## **8. Public Participation**

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Connecticut made significant efforts to engage the public in the planning process. The public was divided into 3 categories as follows:

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<sup>21</sup> Dickson telephone interview, October 19, 2007.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

### ***Group 1: Active Consultation Partners and Collaborators***

Comprised of key public and private conservation groups such as The Nature Conservancy (TNC), Audubon groups, Partners in Flight (PIF) and others. The principal characteristics include:

- Leaders, staff, and programs can contribute significant data or provide a scientific knowledge base that can be incorporated directly into the CWCS.
- Leaders, staff, and programs can collaborate on the implementation, monitoring, and assessment/evaluation of the CWCS.

### ***Group 2: Interested Groups and Individuals***

Comprised of a multitude of non-government organizations (NGOs) including local land trusts, watershed groups, and advocacy groups. Principal characteristics include:

- Limited knowledge of data and research information needed for the CWCS development.
- Likely to have important role in implementation and future revision of the CWCS.

### ***Group 3: General Public***

Comprised of people who may contribute helpful information or realize the associated economic, recreational, and quality-of-life benefits resulting from the implementation of a comprehensive wildlife strategy in Connecticut.

Outreach and communications to these groups was accomplished through a website, handouts and mailings, and through public presentations. The DEP estimates that it informed tens of thousands of citizens at events such as the Connecticut River Eagle Festival.<sup>25</sup> At the beginning of the plan, the DEP administered surveys and hosted six regional workshops. A list of stakeholders, collaborators, and experts is presented in Appendix 8a. The list is long but these summary tables do not really leave the reader with a sense of how truly engaged the various stakeholders were in the planning process.

More information on Public Participation can be found in Chapter 8, and Appendices 8b and 8c of the CWCS.

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<sup>25</sup> CWCS, 8-3.

## Implementation

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The beauty of primary research is hearing about what is really happening. From a close study of Connecticut's CWCS that included a thirty-three page detailed questionnaire and a rigorous review of the plan, this researcher felt drowned by the volumes information but unsure of the impact of the plan. Conversations with the plan coordinator, other staff in the wildlife division as well as stakeholder interviews set the record straight. The planning process and the plan itself have been transformational. The DEP and other state agencies are collaborating in ways never before experienced. The agency's close working relations with a myriad of stakeholders are stronger than ever.<sup>26</sup> And profound changes in wildlife conservation and data management are underway in Connecticut.

"We are moving along at a good consistent pace in the direction the plan was laid out. We have been lucky in that things have fallen into place for us to implement a lot of different actions from the CWCS. We made sure we were communicating well in the organization," remarked the plan coordinator.<sup>27</sup>

Notably, Connecticut has made considerable strides in addressing the data gaps noted in the CWCS and in developing GIS resources. In the CWCS, the most frequent need cited for GCN species was "needs research."

"We knew going into the plan was that we did not have a lot of up to date information in terms of geospatial information, especially for forests. Part of the challenge is our level of funding and that much of the data is not in the wildlife division. We have to work with our partners to get the best available information," observed the plan coordinator. "What has been amazing to me is the increased awareness about the importance of wildlife conservation and wildlife habitat on the part of people statewide, not just our usual partners but the general public. I am constantly amazed by the number of people who have read the wildlife action plan." A number of groups such as land trusts and local municipalities have approached the DEP and said their organizations are taking specific based on actions and priorities outlined in the CWCS.

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<sup>26</sup> Dickson telephone interview, October 19, 2007.

<sup>27</sup> Dickson telephone interview, October 19, 2007.

## Implementation Successes and Challenges

### Successes

- The Grassland Habitat Conservation Initiative
- Forestry Mapping GIS project and other mapping such as the Natural Diversity Database maps
- Increased communication and coordination within government agencies.

### Challenges

- Ongoing funding constraints
- Coordinating various partners to focus on CWCS priorities

## Forest Stand GIS Project

The Forest Stand GIS database project is a direct outcome of the action plan. The agency addressed the data gaps on forest resources by partnering with the forestry division and the University of Connecticut, Extension Service. “We realized early on that the forestry people could tell us about every forest stand in every state forest. The challenge was that all of their information was on paper maps. Now we are digitizing old forest maps and creating new GIS layers. We have hired two GIS consultants, one in the forestry and one in wildlife division,” explained the database coordinator.<sup>28</sup>

Now Connecticut has both public and private forest land delineated. The ground-truth information gained through this project will be applied to satellite imagery and will allow us to delineate more accurately all forest land statewide regardless of ownership.<sup>29</sup> DEP can generate reports with ecological data, which was not possible when the CWCS was published. Additionally, the state continues to update and improve its maps for listed species and makes these available to the larger public. These maps show areas of concern for endangered, threatened, and special concern species based on data collected by DEP staff, scientists, conservation groups, and landowners. The maps often serve as a pre-screening tool for people seeking state and local permits for development projects.<sup>30</sup>

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<sup>28</sup> Moran, October 12, 2007.

<sup>29</sup> Written comments from the Plan Coordinator, December 2007.

<sup>30</sup> Connecticut Wildlife, July/August 2006, p. 4.

## **Grassland Habitat Conservation Initiative**

Grassland and early successional habitats were identified as critical habitats in Connecticut's CWCS. Grassland habitats are being lost at a more rapid rate than any of the other eleven habitat types in Connecticut because grasslands typically surround business centers and economic areas subject to development pressure. According to the plan coordinator, there are a number of real estate development proposals under agency review with state listed species located on grassland properties.

“Based on the rate of habitat loss, the commissioner of our agency, in consultation with commissioners of other agencies and with the governor and the legislature, agreed to make the conservation of grasslands habitats the first major initiative of the wildlife action plan to be adopted as an agency wide initiative,” explained the plan coordinator.<sup>31</sup>

Under the Connecticut Grassland Habitat Conservation Initiative, the Department of Environmental Protection is teaming up with a wide variety of state agencies and conservation and agricultural groups in an effort to inventory existing grassland habitat and the array of wildlife species dependent on it. Federal partners include the USFWS, Department of Agriculture, and Natural Resources Conservation Service. State partners include Departments of Agriculture, Economic and Community Development, Transportation, and the Office of Policy and Planning. And finally, NGO partners include Connecticut Audubon, the Nature Conservancy, Connecticut Farmland Trust, Connecticut Farm Bureau, Working Lands Alliance, Trust for Public Land, the Wildlife Management Institute, as well as academic organizations. As of December 2007, the DEP has completed assessments on 548 sites, and a number of acquisitions that are in the discussion phase.<sup>32</sup>

“That is amazing for a whole bunch of different reasons. One, it certainly says that everybody from the governor's office on down recognized items that were in the wildlife action plan and took delivery on that conservation message,” commented a stakeholder.<sup>33</sup>

The Grassland Initiative is an excellent example of how the state used the CWCS to leverage new funds. The Connecticut state legislature voted to allocate nearly \$8 million for the initiative, to be spent on inventorying and acquisition. One non-agency observer reported that “unless Connecticut secures several large parcels that are managed and owned specifically for

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<sup>31</sup> Dickson telephone interview telephone interview, October 22, 2007.

<sup>32</sup> Written comments from the Plan Coordinator, December 2007.

<sup>33</sup> Patrick Comins, Audubon Connecticut. Telephone interview with author, October 19, 2007.

conservation of grassland species, the state will lack a core area essential for the survival of several bird species.”<sup>34</sup>

In fact, birds have been chosen as the primary indicator species for this effort. Several species of grassland-specific birds occur only in high-quality habitat. The state has enlisted volunteer birders to log sightings in an on-line citizen science ornithological database called eBird. This use of eBird is a joint project of Audubon Connecticut, Connecticut Audubon, and the Cornell Lab of Ornithology. Both Audubon groups are active members of the Grassland Initiative Working Group. The DEP has entered discussions to create a Connecticut specific portal within eBird that would be funded by DEP and maintained by the Audubon groups.<sup>35</sup>

Several years ago, there was very little data about grasslands. Now each quadrant has been defined by wildlife staff and volunteers. The goal is to promote conservation without jeopardizing agriculture or economic growth. Connecticut has formed a number of working groups under the Grassland Initiative to realize these goals. In pursuing the Grasslands Initiative, Connecticut is developing a framework that can be used to preserve other types of habitats through the same sort of research and partnerships.<sup>36</sup>

### **Connecticut State of the Birds Report**

In 2006, the Connecticut Audubon Society published the first annual ‘State of the Birds’ report that provides information about past and present bird populations trends in the state. The first issue outlines what is known and what information is needed about birds in the state. The report dovetails with the CWCS and supports findings on the status of migratory birds in the state and outlines conservation actions necessary to restore and protect birds and their habitats.

The report is an excellent example of how a DEP partner agency is helping to fill information gaps outlined in the CWCS.<sup>37</sup> The first year’s report identified six key habitats. The 2007 report focused on threats to birds. The report calls for a concerted effort among stakeholders to improve the quality and quantity of information about birds and their habitats. The goals of the report are aligned with the goals of the CWCS plan.

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<sup>34</sup> Comins telephone interview, October 19, 2007.

<sup>35</sup> Written comments from the Plan Coordinator, December 2007.

<sup>36</sup> Dickson telephone interview, October 22, 2007.

<sup>37</sup> Comins telephone interview, October 19, 2007.

## How Has Funding for Non-Game Wildlife Changed?

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Connecticut's wildlife diversity budget is largely determined by State Wildlife Grant (SWG) funds. Funds appropriated under the SWG program are allocated to the states according to a formula that takes into account each state's size and population. As a small state with a concentrated and large number of GCN species, Connecticut is slightly disadvantaged with respect to SWG funding. Between 2001 and 2007, the DEP received approximately \$4.2 million and most of these funds are used within the agency.<sup>38</sup>

The plan coordinator reported that there had been no dramatic change in the use of SWG funds on account of the CWCS. The department has funded a study of early pollinators and an invertebrate study. Setting up contracts for consultants is a tedious process in Connecticut in part due to a political scandal when the former governor was jailed and questions of contract awarding were raised. This event has put added restrictions on the agency when hiring consultants on a contractual basis.

Regarding external funding, the plan coordinator stated that DEP has a 'good handle' on grant opportunities available to the state and its partners. A number of organizations have linked grant proposals to the action plan. In general, there is a fair amount of coordination with external partners about funding opportunities.

## How Has the Agency Changed?

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Regarding collaboration, the plan coordinator talked a great deal about the new lines of communication within the DEP and across different state agencies and NGOs. "One of the things that working on this plan enabled us to do was to talk with other agencies and groups we don't usually talk with. Having an open dialogue has enabled us to work with groups on implementation. Now that we are in the implementation phase, many organizations are stepping up to help with aspects of the plan," remarked the plan coordinator.<sup>39</sup>

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<sup>38</sup> Dickson telephone interview, October 22, 2007.

<sup>39</sup> Dickson telephone interview, October 22, 2007.

The DEP has made some staffing changes as a result of the plan. For example, the wildlife diversity program hired four wildlife technicians. The responsibilities of these staff members, who are managed by the Plan coordinator, are divided between:

- bird related issues
- mammal issues
- habitat, invertebrate, reptile and amphibian issues, and
- database management

The database manager collects and manages a vast amount of field data related to implementation. She also assists with the development of geospatial resources. Soon the wildlife division expects to launch a user interface over the network which will allow access to multiple staff.<sup>40</sup> Currently, the wildlife division does not plan on making this information an open source resource for the public or sister agencies. The general public can however access maps for state and federal listed species and significant natural community maps. These maps are compiled and maintained by the Natural Diversity Data Base program at the DEP and are updated every six months. This is a new resource and part of the CWCS strategy to improve, expand, and update mapping resources and make these available to the DEP's wide range of partners.

These collaborative partnerships are especially important in Connecticut given funding constraints. Maintaining the momentum around implementation will surely depend on continued communication between the DEP, other state agencies, and NGO partners and the public. The plan coordinator stressed the importance of keeping people informed about priorities and progress and making sure that updates are available to people and organizations through multiple sources such as the state's wildlife magazine and the agency website. Success stories related to implementation have appeared on a regular basis in Connecticut Wildlife magazine and previous issues of that are posted on the DEP web site in the Wildlife Division Section.<sup>41</sup>

## Conclusion

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The Connecticut CWCS is a mighty document. The vast number of threats and actions detailed in the plan is overwhelming. Yet progress on the ground shows that the plan is serving

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<sup>40</sup> Moran telephone interview, October 12, 2007.

<sup>41</sup> Written comments from the Plan Coordinator, December 2007.

its purpose. Clearly the plan has acted as a catalyst for the state, the DEP, and its partners to move to action. Furthermore, the CWCS has been extremely well received by DEP partners and state residents. It has been incorporated in numerous other plans and implementation projects.<sup>42</sup>

Several factors contribute to Connecticut's early success in implementing priorities in the plan. Statewide collaborative partnerships, steady communication and awareness building across government offices and to the public, increases in funding, and the hiring of a dedicated CWCS staff have all helped. Additionally, the CWCS has benefited from consistent and enthusiastic leadership from the plan coordinator. The same person who guided the writing of the plan is now in charge of implementing the actions. Perhaps the coordinator summed it up best when she said, "We must keep reminding the public about the fact that conservation is tied into all that we do. Helping people understand that they may be doing one little thing over here but that it's all part of the big picture will be critical."<sup>43</sup>

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<sup>42</sup> Ibid.

<sup>43</sup> Dickson telephone interview, October 22, 2007.