

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Division of Fish, Wildlife & Marine Resources**  
**Bureau of Wildlife**  
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Joe Martens  
Commissioner

## The Landowner Incentive Program in New York



Since 2004, working with landowners to conserve habitat for at-risk species

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The Landowner Incentive Program (LIP) began as a federally-funded initiative in 2004. In that year, New York State Department of Environmental Conservation (DEC) received a grant from the United States Fish and Wildlife Service (USFWS) to work with private landowners to protect and manage the habitat of at-risk species. Although private land comprises 85% of the area of the state, there had never before been an initiative of this size to work with private landowners on wildlife conservation.

Grassland birds, cave-dwelling bats, and bog turtles—all at risk and needing immediate conservation on private lands—were identified as the first conservation targets. To best use the funds available, we decided to use a geographical focus area approach, since at-risk species show a clustered distribution across the landscape and we wanted the program to provide habitat for as many at-risk animals as possible.

### **Grassland Protection and Management for Grassland Birds:**

For grassland birds, the effort to refine geographical focus areas began through a contract with Audubon NY in 2003. This work was funded through a federal State Wildlife Grant, a funding program administered by USFWS, that was established in 2001 to address unmet management needs of species of greatest conservation need. Working with DEC, Audubon NY assembled a panel of state experts to refine an approach to identify the best areas of the state to concentrate protection efforts for a specific group of species known as grassland birds (Table 1. ). Satellite imagery is notoriously poor at identifying grassland habitat and factors such as grassland age and composition that affect habitat choice by grassland birds. Instead, Audubon NY utilized data from the 2000-2005 Breeding Bird Atlas to record Atlas blocks where grassland birds had been detected breeding to identify draft focus areas. They then made site visits to verify that suitable habitat was still present. The results of this effort are shown on Fig. 1.

Through 2005 and 2006, working with Audubon NY and other grassland bird experts, we developed eligibility and ranking criteria for our first call for applications. The “best and highest” use of the land, row crop agriculture, was used to determine a fair market rental value to pay landowners to set land aside for grassland birds. In 2006-2007, we developed and ran the first call for applications, which elicited a significant response from landowners, eliciting over

200 applications. The selection process worked well to determine the best sites for grassland birds. Out of this first funding period, twelve landowners entered into 5-year contracts for managing their grasslands, representing 986 acres of land. Several landowners who could not be funded through the program enrolled instead in conservation programs administered by the United States Department of Agriculture (USDA). Working with Audubon NY, we prepared and negotiated site-specific site management plans for each property selected. All management plans divided the grassland into sections and prescribed a two or three year mowing rotation, depending on the size of the fields and the landowner's need and ability. In addition, landowners were required, to the best of their ability, to remove hedgerows and isolated trees which detract from the grassland's value for nesting birds. Landowner performance of their responsibilities varied from good to excellent. Several landowners showed impressive efforts in clearing trees and shrubs, many of them exotic buckthorn, honeysuckle, or locust.

The year 2007 brought about the end of federal funding for the Landowner Incentive Program. This was unfortunate because this funding had an attractive match rate of 75/25%, ie- 25% of the total project cost needed to come from non-federal sources. It was also specifically tied to conservation of private land. The Landowner Incentive Program could be funded once again through Congress, but in the meantime, DEC has continued the LIP by supplementing remaining funds from the original LIP grants with State Wildlife Grant funding.

Utilizing remaining funds from the original Landowner Incentive Program grant, we advertised a second opportunity for landowners to apply to enroll land in 2009. Although we were very satisfied with the results of the 2006-07 call for applications, we refined the ranking criteria to reflect the birds' area sensitivity and restricted the minimum eligible acreage to ten acres of contiguous grassland habitat. This second call for applications elicited 124 applications, and ultimately 12 landowners, representing 1309 acres, executed contracts and became enrolled in the program. Again, several landowners who were not selected were referred to USDA and successfully entered into Conservation Reserve Program (CRP) and Wildlife Habitat Improvement Program (WHIP) contracts. In addition to the mowing regime and removal of trees and shrubs, landowners had to control exotic-invasive vegetation such as European buckthorn (*Rhamnus cathartica*), pale swallow-wort (*Cynanchum rossicum*) and knapweeds (*Centaurea spp.*)

Late in 2010, the Farm Service Agency announced the creation of a State Acres for Wildlife Enhancement initiative as part of the Conservation Reserve Program. This initiative, known as "SAFE-CRP" set aside a certain amount of acres for each state to enroll in CRP with the goal of conservation of wildlife habitat. Again working with Audubon NY, DEC took advantage of this opportunity to enter into an agreement with the Farm Service Agency to write grassland conservation plans for eligible land. To date, 31 landowners have enrolled into SAFE-CRP, representing 1,498 acres of land.

Realizing the potential for grasslands to provide nesting habitat for American Kestrels, as well as the troubling decline of the species' population, in 2011 we began working with the Peregrine Fund's American Kestrel Partnership to build, install, and monitor American Kestrel nest boxes, primarily on grasslands enrolled in the Landowner Incentive Program. Materials for the boxes have been donated by the Northeast Woodworker's Association and the Capital District Chapter of the Audubon Society. To date, we have installed 9 nest boxes, 7 of which are on LIP-enrolled properties and 2 on state land. In 2013, Kestrels nested in a box we installed in a field in Schoharie County, and produced three fledglings.

Early in 2013, nearing the conclusion of the terms for the first set of contracts, the original set of landowners was presented the opportunity to enter into new contracts. In all, eleven out of twelve landowners, with 848 acres, have chosen to renew. Funding for these contracts was encumbered through State Wildlife Grants, as LIP funding was no longer available. Site management plans built upon the first 5 years of work to continue to improve conditions for grassland birds.

In 2013, we tightened our ranking criteria further, increasing the minimum land requirement to 25 acres of contiguous grassland. We also increased the payment rate, reflecting a significant increase in bushel corn prices. We received 166 applications, have selected the top 12 and we are in the process of working with landowners to finish site management plans in preparation for developing contracts. By Spring of 2014, we expect to have approximately 2,000 acres enrolled resulting from this effort.

Despite valuable achievements in conserving grassland habitat, until recently we had not been able to monitor nesting activity on most of the enrolled acreage due to staff shortage. In Spring and Summer 2013, teaming up with biologists and technicians in DEC regions 4,5,6,7,8 and 9 we were able to conduct at least two point counts at each enrolled LIP field, totaling 2,157 acres. Wildlife Technicians required for this work were hired with funding from the Federal Aid in Wildlife Restoration, W-173 G Wildlife Diversity grant. Point counts were coordinated by the Grassland Bird Subteam of the Bureau of Wildlife's Wildlife Diversity Team. The Habitat Conservation, Access, and Acquisition Unit contributed staff time, GIS, and other logistic help. All known grassland birds, with the exception of Short-eared Owls, were documented breeding. This was a valuable monitoring effort: firstly, it documents use of fields by grassland birds and can be used to compare with unmanaged or smaller fields; secondly it tells us what particular species are breeding and allows for more targeted management. For example, if we learn that Upland Sandpipers are nesting in a particular field we would modify management of that field to favor that species.

By Spring 2014, we expect to have 35 landowners actively participating in the LIP for Grassland Protection and Management, representing 4,157 acres of excellent-quality habitat for grassland birds. In addition, we will have prepared conservation plans for 31 landowners and 1,498 acres of grassland habitat through the Farm Service Agency's Conservation Reserve Program. In total, we will have assisted in the conservation of some 5,655 acres of habitat for at-risk grassland birds since 2007. We hope to be able to continue monitoring and documenting breeding activity in this habitat.

## **Indiana Bats and other cave-hibernating bats:**

Indiana bats, (*Myotis sodalis*) are federally and state-endangered and hibernate in caves and mines maintaining the proper temperature (approximately 37-43° F, or 2.7 to 6.1° C) throughout the winter. Hibernating bats are easily disturbed and woken up from hibernation, which can be lethal. For this reason, hibernacula need to be gated to prevent trespassing and harm to bats. Gates need to be constructed in such a way that they allow bats to move through unimpeded and air to circulate properly. This measure also benefits other species that overwinter in the same hibernacula, including little brown bats, large brown bats, eastern pipistrelles and other species.

Six hibernacula occurring on private land were identified for gating. In 2006, we worked with the landowner and DEC's Division of Operations to repair a previously-installed gate in Warren County. That hibernaculum housed over 150,000 little brown bats during the winter, before White-Nosed Syndrome decimated their population. In 2011, working with the landowner and Region 6 Operations, we installed a small gate over the entrance to a cave in Jefferson County used by Indiana bats for hibernating. This was a small but important project because the hibernating cluster of bats occurs directly below the now gated entrance, making access restriction a priority. This is also the westernmost population of Indiana bats in New York State, and may be genetically different from other Indiana bats in New York.

In 2007, working with the landowner and the Endangered Species Unit, we temporarily sealed a shaft that had opened in the ceiling of an Indiana bat wintering site. This crucial fix prevented freezing temperatures from harming about 24,000 endangered Indiana bats and thousands of bats of other species known to winter there. This location harbored nearly half of all Indiana bats in New York State at the time, and represented the eighth-largest wintering population for the species. We hope to effect permanent repairs to the site

The onset of White-Nosed Syndrome stresses the importance of restricting access to hibernacula. Bats already affected by this fungal disease are even more likely to die if disturbed. Indeed, WNS may have been averted if hibernacula had been properly gated to prevent unauthorized human intrusion.

## **Management and Protection of Bog Turtle Habitat.**

Shallow, open-canopy wetlands such as mineral fens and wet meadows are home to the federally threatened bog turtle (*Clemmys muhlenbergii*) and other rare species such as the spotted (*Clemmys gutatta*), and wood turtle (*Clemmys insculpta*). These wetlands were once numerous throughout the Hudson Valley and Great Lake Plains regions of the state and were maintained in an early, open stage of succession by the combined effects of beaver damming activity, grazing by native herbivores and fires set by American Indians; and later by early settlers and low-intensity agriculture. Without frequent disturbance, these wetlands become overgrown with pioneer forest species such as red maple. Habitat degradation is accelerated and exacerbated by development, exotic invasive species such as Phragmites and purple loosestrife, and building of roads which function as a barrier to animal movements and disrupt wetland hydrology. These

three factors often act in synergy to quickly lead to habitat loss: development requires building new roads which fragment the wetland and disrupt hydrology and destroy the native vegetative mat, serving as a conduit for the introduction and proliferation of native and exotic invasive species. At-risk species cannot migrate to suitable habitat quickly enough and succumb to the altered conditions.

Over the last 35 years, bog turtles have disappeared from more than 50 % of the wetlands they once occupied. In New York, viable populations remain in isolated wetlands of the lake plains and the southern and middle Hudson valley. Of these, the Hudson valley population, which is part of the Hudson-Housatonic Recovery Unit (HHRU), is more robust, numerous, and living in higher quality habitat. Since ninety-five percent of bog turtle habitat is on private land, protection of the species is impossible without the participation of private landowners. Similar to the development of grassland bird focus areas, we used a subset of the HHRU to delineate the program's focus area for aiding bog turtles (Fig. 2).

In 2009-2010, we advertised an opportunity for landowners and NGOs working with landowners to receive technical and financial assistance for restoring habitat for bog turtles. We received 15 applications and selected three projects for funding. One of these resulted in a Wetland Reserve Program project, another could not be accepted due to landowner issues, and the third, located in Dutchess county, was awarded a LIP contract. The landowner at this site has been working with fen restoration experts at Hudsonia Ltd, removing invasive trees and shrubs and using two dairy cattle to graze overgrown vegetation, primarily cat-tail, and improve conditions for bog turtles. Hudsonia Ltd has also been tracking turtle movements, nesting activity, and keeping a detailed and extensive list of plants identified. In 2012, 12 bog turtle nests were located and exclosed. In 2013, spikemoss, a rare plant, was found and recorded.

Our program is also collaborating with DEC Region 3 to manage fen habitat at a state-owned site in Putnam County, hoping to eradicate Phragmites from a large portion of the site through herbicides, burning, and restoration grazing with livestock.

### **A Look into the Future for the Landowner Incentive Program:**

In future years, the Landowner Incentive Program will continue to grow, building on its success and striving to work with private landowners, NGOs, federal agencies, and conservation partners to conserve and manage habitat for at-risk species. Two species that have come into the spotlight in need of conservation are the New England cottontail and the Golden-Winged Warbler. Both of these species need careful habitat management and conservation to provide the young forest habitat they require.

Shrublands, which includes scrubland, young forests, and other transitional habitats, have declined in distribution, size, and abundance as the state as a whole reverts towards a more forested condition. These habitats are important to a particular and varied suite of birds (Table 2.) The *Second Atlas of Breeding Birds in New York State* dramatically shows the decline in shrubland birds since the First Atlas (1985-1990) and a concomitant rise in most forest-dwelling species. One of the key birds affected by habitat loss and competition with related species is the

Golden-Winged Warbler. This species also suffers from interbreeding with the more adaptable and aggressive Blue-Winged Warbler and could be extirpated through genetic swamping. Focus areas for the Golden-Winged Warbler are shown on Fig. 3.

The New England cottontail, *Sylvilagus transitionalis*, the only cottontail rabbit native east of the Hudson River, has also declined in abundance and distribution in New York. This species has suffered from habitat loss and competition with the more adaptable Eastern cottontail, *Sylvilagus floridanus*. The New England cottontail is now being considered for listing as endangered or threatened by US Fish and Wildlife Service. Focus areas in the Hudson River Valley have already been identified (Fig. 4). We are currently assisting the federal government to enroll landowners in the Working Lands for Wildlife Program. We will also be managing habitat on one of our Wildlife Management Areas as a demonstration project for landowners, land managers, and others interested.

We will use the model of our existing Landowner Incentive Programs to work with landowners to conserve habitat for both species.

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Table 1. At-risk grassland birds:

Species	NY Natural Heritage Rank	NYS Status	Partners in Flight	Breeding	Wintering
Northern harrier	S3	Threatened	IIC	X	X
Upland sandpiper	S3	Threatened	IA	X	
Short-eared owl	S2	Endangered	IB	X	X
Horned lark		Spec. Concern		X	X
Sedge wren	S3	Threatened	IIC	X	
Vesper sparrow		Spec. Concern		X	
Grasshopper sparrow	S4	Spec. Concern	IIC	X	
Henslow's sparrow	S4	Threatened	IA	X	
Bobolink	S5	not listed	IIA	X	
Eastern meadowlark	S5	not listed	IIA	X	
Savannah sparrow	S5	not listed		X	
Loggerhead Shrike	S3	Endangered		X ?	

Table 2. At-risk early succession forest and shrubland bird species New York State.

Species	NYS Status	NABCI NY BCR Priority	Audubon Watchlist	PIF National Priority
American woodcock		IA	Y	
Brown thrasher		IIA		Y
Golden-winged warbler	Spec Conc	IA	Y	Y
Canada warbler		IA	Y	
Yellow-breasted chat	Spec Conc	IIA		
Willow flycatcher		IA	Y	Y
Black and white warbler		IIA		
Chestnut-sided warbler		IIA		
Eastern towhee		IIA, B		Y
Field sparrow		IIA		
Northern flicker		IIA		
Rose-breasted grosbeak		IIA		
Veery		IIA, B		
Whip-poor-will	Spec Conc	IIA, C		
Common nighthawk	Spec Conc			
Prairie warbler		IA	Y	Y
Black-billed cuckoo		IIA		
Blue-winged warbler		IA	Y	Y
Indigo bunting		IIA, B		Y
Baltimore oriole		IIA		
Ruffed grouse		IIA		

Fig. 1

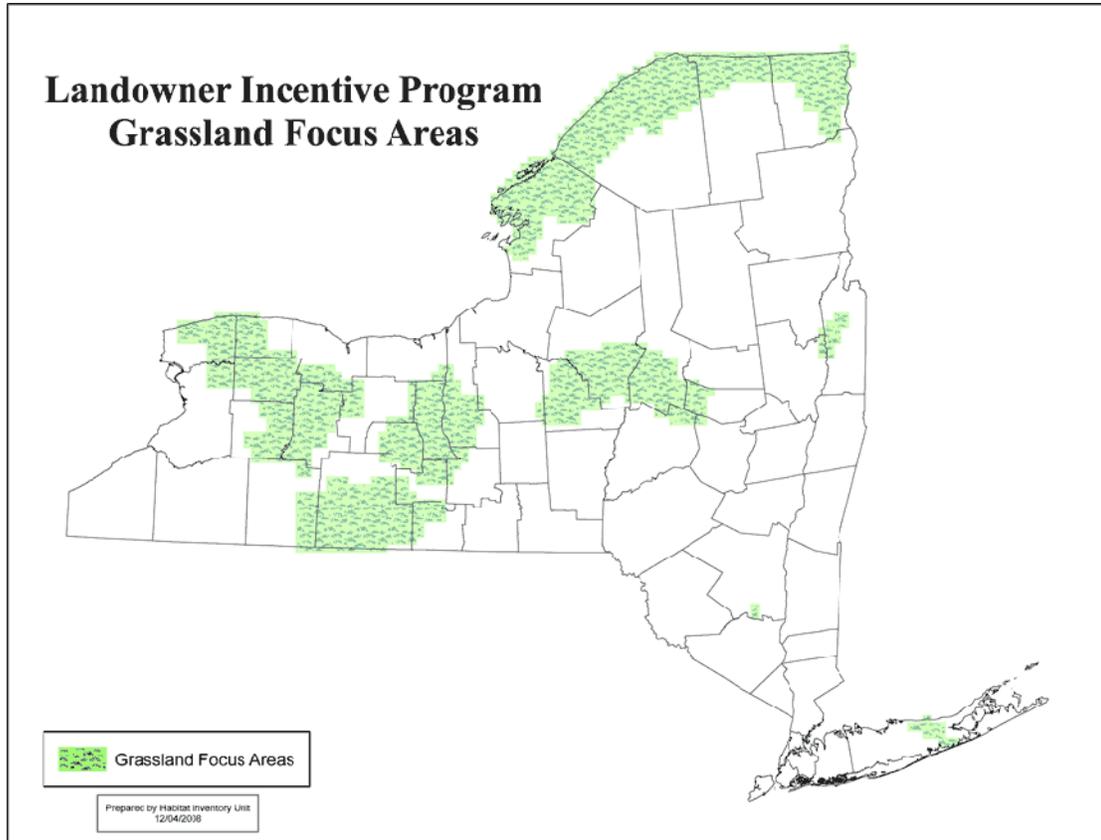
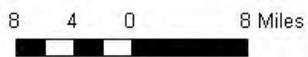
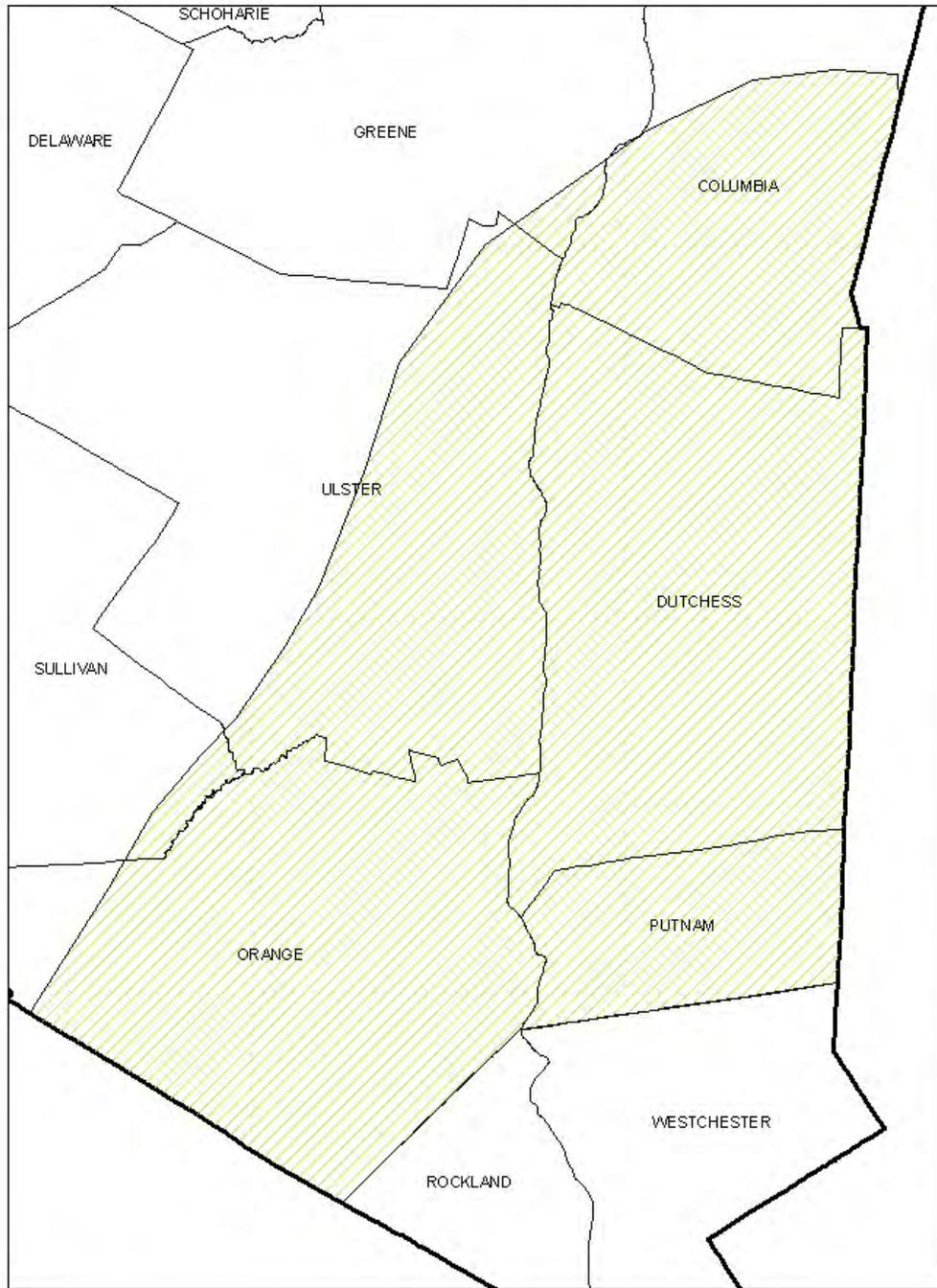


Fig. 2

## Bog Turtle Focus Area



### Legend

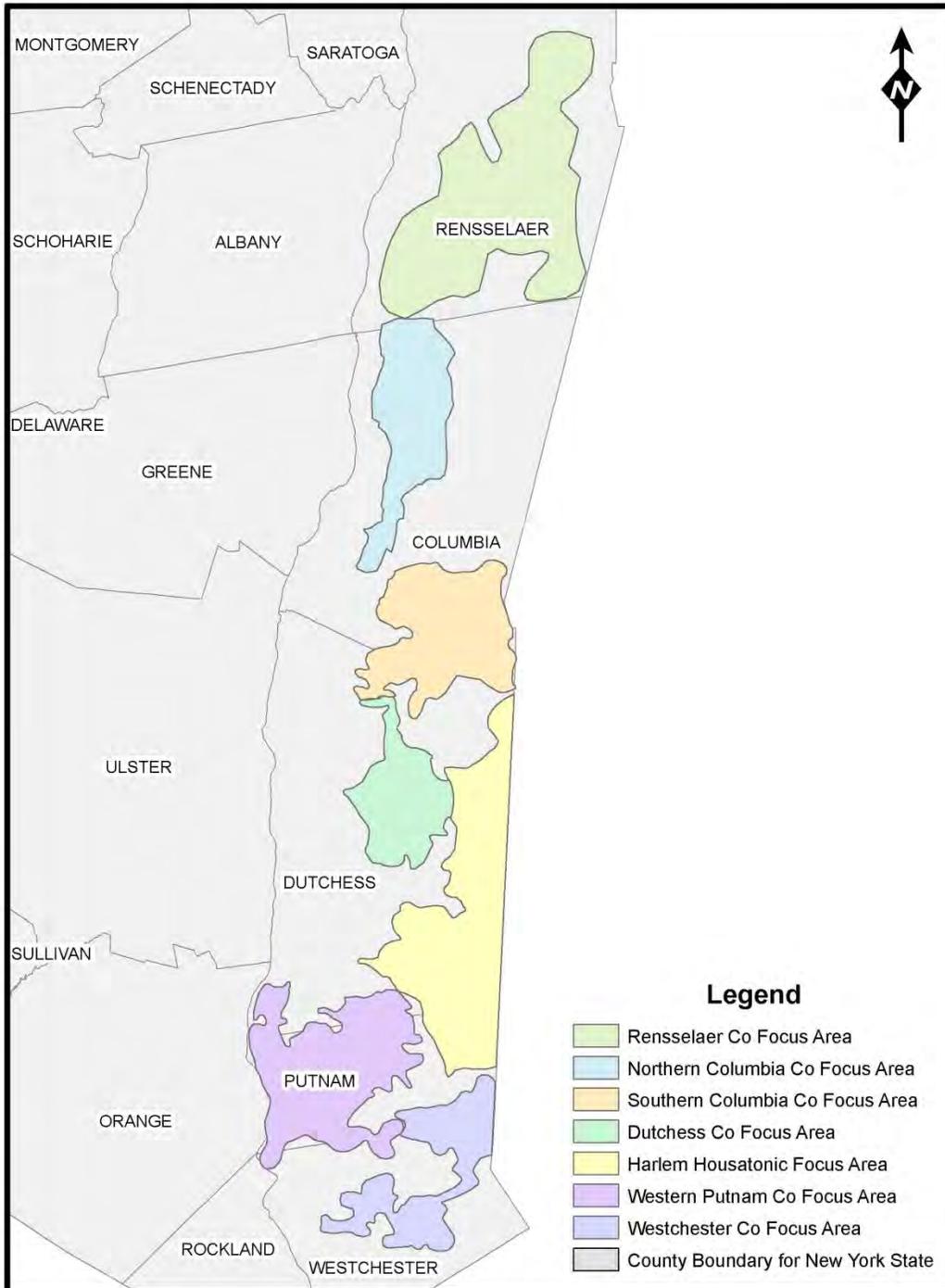
 LIP Bog Turtle Focus Area



Fig3.

Fig. 4

## New England Cottontail Focus Areas



0 4.5 9 18 27 36 Miles

NYSDEC  
SJV  
28 Mar 2011