

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2012 ABSTRACT

Quarter: (circle one) 2012 1st 2012 2nd 2012 3rd 2012 4th

Grant Number and Title: 2011-02; Use of a vulnerability index to assess species most likely to be impacted by climate change

Grant Receipt/Organization: NatureServe

Grant Project Leader: Lesley Sneddon

Please provide a short (1-2 paragraphs) abstract that addresses EACH of the following: the objectives of your project, accomplishments to date, future plans and timelines with an estimate for when the project will be completed.

Our objectives are to convene a team of collaborators to select 60 species to be assessed for climate change vulnerability, and to conduct assessments of the final list of 60 species using NatureServe's Climate Change Vulnerability Index. To date, we have assembled an advisory team and have conducted several conference calls, and finalized a list of 64 species approved by the NALCC Science Coordinator. Work assignments for conducting the assessments has been completed, and natural history information for the plant species is being compiled. Assessments of animal species will be completed by NatureServe zoologists, beginning in September, and assessments of plant species will begin next quarter. The contract deadline is December 31, 2012. Since many of our scientists are currently engaged with field work, we may request a brief extension.

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2012 PROGRESS REPORT

Quarter: (circle one) 2012 1st **2012 2nd** 2012 3rd 2012 4th

Grant Number and Title: 2011-02; Use of a vulnerability index to assess species most likely to be impacted by climate change

Grant Receipt/Organization: NatureServe

Grant Project Leader: Lesley Sneddon

Were planned goals/objectives achieved last quarter?

Yes, in part.

NALCC Conservation Need Addressed: Evaluating the Vulnerabilities of Ecological Resources to Climate Change in the Northeast

Progress Achieved: (For each Goal/Objective, list Planned and Actual Accomplishments)

1. Convene a team of collaborators to select 60 species to be assessed using the CCVI. The set of species will include a mix of Federal Trust species of high responsibility by the NALCC, foundation species selected from habitats currently being assessed for climate change vulnerability by Manomet, and species of greatest conservation need as identified by the Northeast Association of Fish and Wildlife Agencies.

Planned: Finalize the list of 60 species to be assessed for climate change vulnerability; complete work assignments and begin assessments.

Actual: A list of 64 species was finalized following conference calls with the smaller advisory group (See attachment). Work assignments were begun, and compilation of literature sources for the listed plant species is under way.

Summary of Progress: (Provide a paragraph describing progress, work to come, and timelines)

The smaller team collaborated on several conference calls and email exchanges to come to a final decision on the list of species to be assessed. A list of 64 species was approved by Scot Schwenk, and was disseminated to the larger advisory group on June 15, 2012. Work assignments have been completed, and natural history information is currently being assembled for plant species. Animal species will be assessed by NatureServe Zoologists beginning in September, and plant species vulnerability assessments will begin next quarter.

Difficulties Encountered: None

Activities Anticipated Next Quarter: Assemble natural history and climate data for plant species and begin conducting plant assessments using the CCVI.

Expected End Date:

March 30, 2013*

*We anticipate requiring an extension beyond our currently contracted deadline of December 31, 2012 due to the slower-than-anticipated species selection process.

Costs:

Funds Expended to Previous to this Report: \$15,552.79

Amount of NALCC Funds Requested within this Report: \$ 12,208.87

Total Approved Budgeted NALCC Funds: \$100,399

Are you within the approved budget plan? Yes

Are you within approved budget categories? Yes

Signature:

Date:

SPECIES TO BE ASSESSED FOR CLIMATE CHANGE VULNERABILITY

Species	Common Name	Habitat
<i>Botaurus lentiginosus</i>	American Bittern*	Laurentian-Acadian Wet Meadow-Shrub Swamp
<i>Anas rubripes</i>	American black duck	Freshwater marshes; coastal marshes
<i>Haematopus palliatus</i>	American oystercatcher	Coastal beaches and mudflats
<i>Alosa sapidissima</i>	American Shad	Medium-sized to large rivers
<i>Sorex palustris</i>	American water shrew	Streams to small rivers
<i>Salmo salar</i>	Atlantic salmon	Medium-sized to large rivers
<i>Acipenser oxyrhynchus</i>	Atlantic Sturgeon*	Medium-sized to large rivers
<i>Chamaecyparis thyoides</i>	Atlantic white cedar	Swamps
<i>Abies balsamea</i>	Balsam fir	Acadian Low-Elevation Spruce-Fir Forest and Flats
<i>Catharus bicknelli</i>	Bicknell's Thrush**	Acadian Low-Elevation Spruce-Fir Forest and Flats
<i>Nyssa sylvatica</i>	Black gum	Swamps
<i>Picea mariana</i>	Black spruce	Boreal-Laurentian Bog
<i>Setophaga striata</i>	Blackpoll Warbler	Spruce-fir-hardwood forests
<i>Callophrys lanoraieensis</i>	Bog elfin	Bogs
<i>Alasmidonta varicosa</i>	Brook Floater*	Streams to small rivers
<i>Salvelinus fontinalis</i>	Brook Trout	Streams to small rivers
<i>Setophaga cerulea</i>	Cerulean Warbler*	Oak-hickory-pine forests
<i>Sterna hirundo</i>	Common Tern*	North Atlantic Intertidal Mudflat
<i>Malaclemys terrapin</i>	Diamondback terrapin	Coastal marshes
<i>Alasmidonta heterodon</i>	Dwarf Wedgemussel	Medium-sized to large rivers
<i>Cicindela dorsalis</i>	Eastern beach tiger beetle	Coastal beaches and mudflats
<i>Cryptobranchus alleganiensis</i>	Eastern Hellbender**	Medium-sized to large rivers
<i>Tsuga canadensis</i>	Eastern hemlock	Northern hardwood-hemlock forests
<i>Lasiurus borealis</i>	Eastern red bat	Oak-hickory-pine forests
<i>Callophrys irus</i>	Frosted elfin	Pine barrens
<i>Callophrys hesseli</i>	Hessel's hairstreak	Swamps
<i>Limulus polyphemus</i>	Horseshoe Crab	Coastal beaches and mudflats
<i>Somatochlora incurvata</i>	Incurvate emerald	Bogs
<i>Ambystoma jeffersonianum</i>	Jefferson Salamander*	Northern hardwood-hemlock forests
<i>Ixobrychus exilis</i>	Least Bittern	Laurentian-Acadian Wet Meadow-Shrub Swamp
<i>Sterna antillarum</i>	Least Tern*	Northern Atlantic Coastal Plain Sandy Beach
<i>Mustela nivalis</i>	Least weasel	Pine barrens
<i>Chamaedaphne calyculata</i>	Leatherleaf	Bogs
<i>Seiurus motacilla = Parkesia motacilla</i>	Louisiana Waterthrush*	Streams to small rivers
<i>Cistothorus palustris</i>	Marsh wren	Freshwater marshes
<i>Alces americanus</i>	Moose	Spruce-fir-hardwood forests
<i>Sylvilagus transitionalis</i>	New England Cottontail**	Ruderal Shrubland & Grassland

<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	Ponds and lakes
<i>Accipiter gentilis</i>	Northern Goshawk	Appalachian (Hemlock)-Northern Hardwood Forest
<i>Pituophis melanoleucus melanoleucus</i>	Northern pinesnake	Pine barrens
<i>Parkesia noveboracensis</i>	Northern waterthrush	Laurentian-Acadian Alkaline Conifer-Hardwood Swamp
<i>Thuja occidentalis</i>	Northern white cedar	Swamps
<i>Seiurus aurocapilla</i>	Ovenbird	Northern hardwood-hemlock forests
<i>Pontederia cordata</i>	Pickerelweed	Freshwater marshes
<i>Charadrius melodus</i>	Piping Plover	Coastal beaches and mudflats
<i>Pinus rigida</i>	Pitch pine	Northeastern Interior Pine Barrens
<i>Sarracenia purpurea</i>	Purple pitcher plant	Bogs
<i>Picea rubens</i>	Red spruce	Spruce-fir-hardwood forests
<i>Buteo lineatus</i>	Red-shouldered Hawk	Oak-hickory-pine forests
<i>Ammodramus caudacutus</i>	Saltmarsh Sparrow*	Northern Atlantic Coastal Plain Tidal Salt Marsh
<i>Acer saccharinum</i>	Silver maple	Floodplain / riparian forests
<i>Isotria medeoloides</i>	Small whorled pogonia	Northern hardwood-hemlock forests
<i>Spartina alterniflora</i>	Smooth cordgrass	Northern Atlantic Coastal Plain Tidal Salt Marsh
<i>Lanthus vernalis</i>	Southern pygmy clubtail	Streams to small rivers
<i>Clemmys guttata</i>	Spotted Turtle*	Laurentian-Acadian Wet Meadow-Shrub Swamp
<i>Falci pennis canadensis</i>	Spruce Grouse	Spruce-fir-hardwood forests
<i>Acer saccharum</i>	Sugar maple	Northern hardwood-hemlock forests
<i>Vallisneria americana</i>	Tapegrass	Streams to small rivers
<i>Quercus alba</i>	White oak	Central Appalachian Dry Oak-Pine Forest
<i>Pinus strobus</i>	White pine	Oak-hickory-pine forests
<i>Lithobates sylvaticus</i>	Wood Frog	Ponds and lakes
<i>Hylocichla mustelina</i>	Wood Thrush	Central Appalachian Dry Oak-Pine Forest
<i>Glyptemys insculpta</i>	Wood Turtle	Streams to small rivers
<i>Scirpus cyperinus</i>	Woolgrass	Freshwater marshes