



NExUS Ongoing Projects and Activities Tue Nov 20 00:44:00 EST 2018

Name	Vulnerability Assessment of Virginia's Species of Greatest Conservation Need
Description	<p>The Department of Game and Inland Fisheries, National Wildlife Federation, and Conservation Management Institute as well as a climatologist/modeler at Kutztown University in Pennsylvania have been working to conduct a species vulnerability assessment for a selection of Species of Greatest Conservation Need from the Virginia Wildlife Action Plan. This project is funded with State Wildlife Grant dollars and generous support from the Doris Duke Charitable Foundation. It is designed to address one of the Data and Modeling Needs that was identified within our 2009 climate change adaptation strategy (page 19; http://www.bewildvirginia.org/climate-change/). The project has two main research components:</p> <ol style="list-style-type: none"> 1. Develop a regional climate model that can help inform wildlife management decisions and; 2. Assess how the predicted changes are likely to impact species and habitats associated with Virginia's Wildlife Action Plan. <p>For the first component, a climatologist conducted a dynamic downscaling of the continental-scale climate models developed by the IPCC. This allowed for about 45 different climate variables and increased the geographic resolution from 100 sq. km. to 10 sq. km. The models include almost all of West Virginia, all of Virginia, all of Maryland, and all of Delaware. Models were generated using the B1 and the A1FI green house gas emission scenarios and outputs were generated for the year 2060 (50 years from our start date) and the year 2095 (near the end of the IPCC model run). For the second component, the climate change data was used to determined potential range shifts of a selection of Species of Greatest Conservation Need based on the climate variables most significant to a species survival. All outputs are spatially explicit and depict potential species shifts based solely on climate variables at 2050 and 2095.</p>
Category	- Research
Sector	- Natural Ecosystems - Biota
Focus Area	- Changes in Extremes of Weather and Climate - Conservation/ Restoration of Sensitive Species and Habitats
Region	- Regional Or State -- Mid-Atlantic
Status	- Ongoing
Timelines	Start August 2009
Lead Agencies	Department of Game and Inland Fisheries, National Wildlife Federation, Conservation Management Institute
Contacts	Chris Burkett, Department of Game and Inland Fisheries, chris.burkett@dgif.virginia.gov