

Putting regional science to work for Northeast states

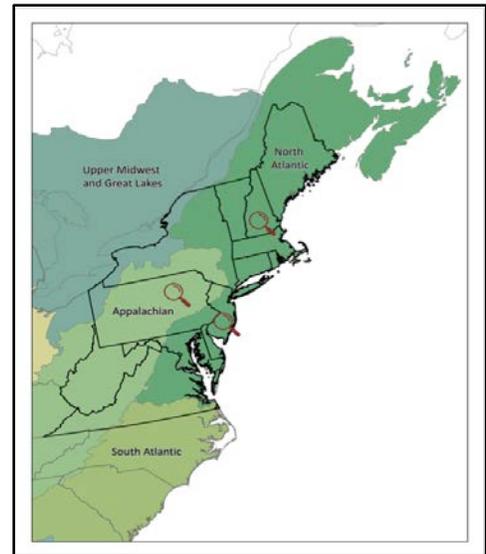
The completion of the mandatory 10-year updates of State Wildlife Action Plans (SWAPs) last October marked an important milestone for landscape conservation. The first drafting of SWAPs in 2005 provided the motivation and momentum to develop regional maps and datasets that would enable planning and actions to support Regional Species of Greatest Conservation Need (RSGCN).

Today many states report having used a combination of regional resources developed by the North Atlantic Landscape Conservation Cooperative (LCC) and the Northeast Regional Conservation Needs (RCN) program to update their plans. But more than just benefiting from landscape-scale data produced through landscape-scale coordination, state partners have emphasized the value of the resulting conservation network that is helping them advance conservation within their own boundaries by looking beyond them.

“The LCC is building on projects that were started by the RCN, and vice versa. It’s interwoven, and there is a lot of power in that. That relationship has really helped to foster so many of the partnerships in the Northeast. Now we can all build on this work together.” - Catherine Haffner, Wildlife Biologist, Conservation Planning Coordinator, Pennsylvania Game Commission

Examples of how states across the Northeast are using regional datasets and tools

- **New Jersey** conducted a co-occurrence analysis using inputs from both state and regional datasets, including the Index of Ecological Integrity and Landscape Complexity, to get a better sense of where to focus revisions for its plan.
- **Pennsylvania** integrated spatial data from the Northeast Terrestrial Habitat map to refine species-habitat associations in the habitat chapter of its plan.
- **New Hampshire** used the Index of Ecological Integrity to refine its approach for identifying resilient lands as part of a new habitat condition analysis for its plan.
*Learn more in the **Case Study** below.*



Case Study: New Hampshire’s application of the Index of Ecological Integrity (IEI)

What is it? The Index of Ecological Integrity (IEI) is a modeling approach and resulting maps that depicts the relative integrity of more than 140 different ecological systems at regional, state, and watershed scales.

Who is using it? Katie Callahan, GIS Specialist, New Hampshire Fish and Game Department

How is it being applied? New Hampshire used the Index of Ecological Integrity to refine its approach for identifying resilient wildlife habitat as part of the mandatory ten-year update of its State Wildlife Action Plan.

To provide clear guidance that can help resource managers, conservation professionals, and planners identify areas that offer the best prospects for long-term conservation, New Hampshire ran an in-depth analysis to assess the condition of all habitat types in the state.

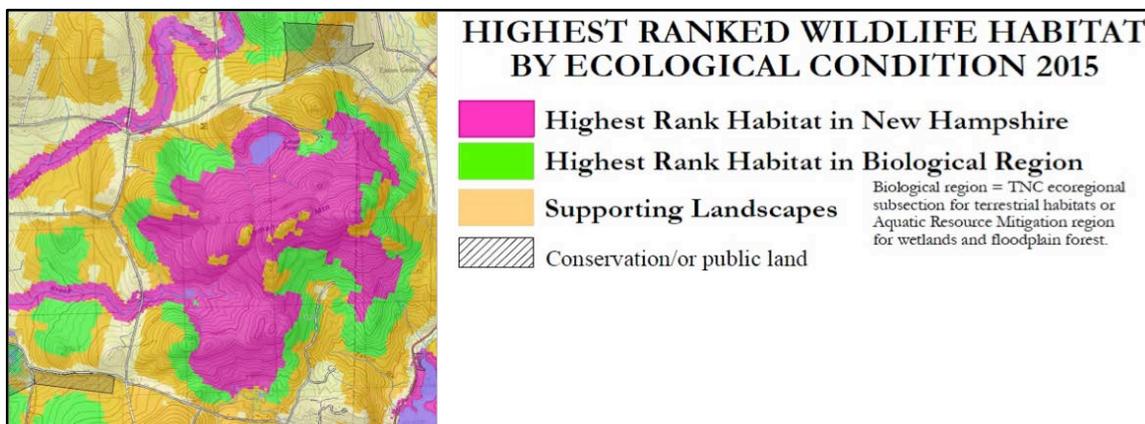
“This is the third time we’ve done a condition analysis for New Hampshire, and we found that even though IEI is weighted evenly with other datasets, it really helped to refine what we delineated as the areas in the state in the best relative ecological condition,” said Callahan.

IEI adds value because it captures the potential for a site to support biodiversity over time by assessing how vulnerable it is to disturbances, and how likely it is to withstand environmental change over time.

What need does it address? By focusing New Hampshire’s conservation lens, IEI will inform more effective decisions in the state, and beyond. Callahan explained that the results will directly inform her agency’s work on the ground in land acquisition and outreach to private landowners, but pointed out that it’s also a valuable tool to help land trusts and conservation commissions make local decisions that reflect state and regional priorities. Since the state began promoting the new maps last fall, a handful of organizations have contacted the agency to request access to the IEI datasets.

But one of the clearest indications that the data has helped to fill a scientific gap comes from the field itself.

“The ecologists who are out there in the field have been telling us that the places identified using the new habitat condition assessment, which includes IEI, are much more in line with what they see on the ground in terms of the natural communities that are in the best condition,” said Callahan.



Hotspots for biodiversity: New Hampshire Fish and Game used IEI as part of the process of identifying and ranking habitat for its SWAP update. This image depicts high ranking habitat in the vicinity of Lyman Mountain, Madison, N.H.

To learn more about the North Atlantic LCC

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