New approach to urban ecology emerges from Forest Service research in Baltimore

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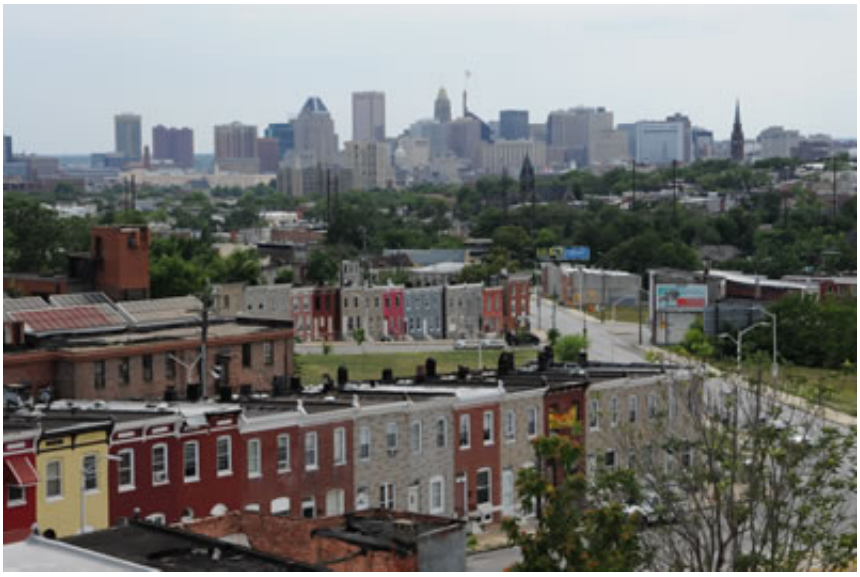

Two decades of USDA Forest Service research in Baltimore contributed to "The Baltimore School of Urban Ecology," the first new school of urban ecology to emerge in more than 90 years. Credit: USDA Forest Service

USDA Forest Service research is shaping a vast and still growing landscape: cities. In a book published this month by Yale University Press, a Forest Service scientist and co-authors propose a new school of urban ecology based on two decades of Forest Service research in Baltimore that encompasses cities' social, political, and ecological complexity.

The book, "The Baltimore School of Urban Ecology," is the first new school of ecology to emerge in more than 90 years, and the vision proposed by Morgan Grove, a Forest Service scientist in Baltimore, and co-authors includes environmental justice, human migration, public health, economic restructuring, water supply, climate and sea-level change, and more. While the research focused on Baltimore, the results have application internationally.

"The Northern Research Station serves about one-half of America and over 80 percent of these people live in urban areas," said Michael T. Rains, Director of the Northern Research Station and the Forest Products Laboratory. "To fulfill the Forest Service's mission to 'care for the land and serve people,' we must have an aggressive, agency-wide program in urban natural resources stewardship whereby science and technology deployment plays a key role. To be relevant in improving people's lives throughout the rural to urban land gradient, we need to make a real difference in the health of the environments in which all people live."

With the urban landscape expanding in the United States and throughout the world, understanding the elements of urban ecology has become essential to not only making cities more livable, but making the planet sustainable, according to Grove. "If we have a land ethic that does not include cities, we do not truly have a land ethic," he said.

In the 1920s, the Chicago School portrayed cities as separate from nature; Grove and his co-authors assert that cities are a rich mosaic of natural and built systems that can be even better when planning considers social and ecological perspectives.

Grove is one of several Forest Service scientists in Baltimore who are part of the Baltimore Ecosystem Study, an effort funded by the National Science Foundation and the Forest Service that examines environmental

features like trees, waterways, and soils, built structures like roads, ports, houses, and industrial facilities, as well as social factors like the distribution of people, health problems, wealth, and crime. In addition to Baltimore, the Forest Service maintains urban field stations in New York City, Philadelphia and Chicago.

Provided by USDA Forest Service - Northern Research Station