

COLLABORATION





Right: Student photographer Emily Witman works in the field capturing images of harperella.

Left (clockwise): Student photographer Rob Brzostowski photographs amphipods with a camera equipped microscope; Editor Giselle Mora-Bourgeois travels in a U.S. Park Police helicopter for an aerial photo shoot; Diane Pavek collaborates with students to select article photography.



The common thread in these studies and projects is human influences on the natural resources in the Region's parks. Studies and research on natural resources in the National Capital Region include historical and ecosystems perspectives. With these perspectives, scientists explore the relationships of urbanizing landscapes and ecological processes. Examples of human pressures and their impacts on the ecology of parks are examined in the studies on impervious surfaces and the restoration of disturbed wetlands. The challenges illustrated in this booklet include restoring federally listed species, maintaining genetic variation in brook trout populations, identifying and preserving dragonflies, and protecting amphipods living underground. In addition, the articles emphasize ecosystem services that the urban National Parks provide, such as air and water filtration, regulation of microclimates, surface and subsurface water drainage, recreation, and the conservation of biodiversity.

Understanding the complex working of urban ecosystems relies on multi-disciplinary approaches. For this reason, the Center for Urban Ecology has an interdisciplinary team of scientists to address park and regional needs. As part of that team, the Urban Ecology Research Learning Alliance actively supports research on urban ecology and communicates research results to diverse audiences.

All aspects of this booklet, from the scientific content to its graphic design, are the result of collaboration among diverse partners. For example, for this publication the Urban Ecology Research Learning Alliance funded a graduate fellowship at George Mason University to assist with interviewing principal investigators and National Park Service staff, pulling together relevant materials, and crafting drafts of the articles. The Urban Ecology Research Learning Alliance and Center for Urban Ecology staff provided editorial guidance. We collaborated with the Graphic Design program at Shepherd University where students took photographs, created the graphic design for the booklet, and provided quality control during publication. By involving creative students with diverse backgrounds to develop science communication products like this publication, the students not only acquire real-world experience, but also increase their understanding about urban ecology issues.

The Urban Ecology Research Learning Alliance will continue to look for innovative ways to develop and strengthen cooperation

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for scientific efforts to protect park resources and values. Our work is possible because of the diverse partnerships and collaboration between scientists, students, academic institutions, federal agencies, and National Park Service staff. We will continue building relationships with universities and other agencies committed to the stewardship of our national parks. The studies and projects contained in this booklet support the National Park Service mission to preserve resources so that all may experience our natural and cultural heritage.

Promoting Science for Parks through Partnerships

The Urban Ecology Research Learning Alliance is the Research Learning Center for the National Capital Region. We sponsored this booklet, which supports our mission to synthesize and communicate research results, promote research in the parks, and increase research-related educational opportunities. The seven scientific studies and projects summarized in this booklet provide examples of the many natural resource values and challenges in the National Park units of the National Capital Region.