SUMMARY
Heritage Conservancy completed the fourth year of its successful environmental education program, which provides supplemental, experiential learning in conjunction with state environmental education standards, featuring Bristol Marsh as a local example of wetland habitat and an outdoor laboratory for teachers and students.
Heritage Conservancy received requests from school districts beyond the Bristol districts to develop a wetland ecosystems teaching guide to enhance their students' science curriculum. Heritage Conservancy completed the Guide and has begun distribution to multiple schools districts in the greater Philadelphia region.

CHALLENGE
Teachers are very aware of the need to provide their students with outdoor learning opportunities that connect science classroom discussion with real-life examples. Increasing financial hardships in these school districts are such that this unique resource in their “backyard” can only be experienced and interactive education take place if funding is found elsewhere. These Title I schools are in communities struggling to deal with many of the social problems associated with urban communities, i.e. crime, poverty, and dysfunctional families. More than 60% of the students qualify for free or reduced lunch at Bristol Township School District; 55% at Bristol Borough. In January 2011, the U.S. Department of Education released “The Nation’s Report Card,” the results of the 2009 National Assessment of Educational Progress (NAEP). NAEP periodically measures student learning in reading, mathematics and science. Science scores for students in urban schools in eighth grade scored significantly lower than students of that age in non-urban schools posing reasons for concern and emphasizing the need to engage students from these challenged districts in creative science-related educational opportunities.
SOLUTION
Prior to visiting Bristol Marsh, students received in-classroom presentations about watersheds, water quality, freshwater tidal marshes and also learned about the methodology and findings of Heritage Conservancy’s 2013 BioBlitz, a community and scientific study of the marsh field study. This year’s field program was modeled after the popular BioBlitz. In addition to Heritage Conservancy staff, educators from Silver Lake Nature Center and Delaware Canal State Park led students on a two-day exploration of the marsh to observe and identify unique plants and wildlife that call this habitat home. Students were divided into small groups and led throughout the 18-acre nature preserve armed with binoculars, identification guides, nets and magnifying lenses. Each student documented findings in a personal field journal, tallied their sightings and calculated an estimated overall biodiversity of the Marsh. Feedback from teachers, students and school administration was overwhelmingly positive.

RESULTS
An initial printing of 300 booklets sent to approximately 100 contacts at 48 schools in Bucks County and far northeast Philadelphia. Digital copies also provided. Upon requests for additional copies, Heritage Conservancy will run subsequent printings to meet demand.

Contact
Claire Sadler, Conservation Coordinator
Delaware & Lehigh National Heritage Corridor
2750 Hugh Moore Park Road
Easton, PA 18042
610-923-3548 ext. 226
Claire@delawareandlehigh.org
www.delawareandlehigh.org
www.lehighvalleygreenways.org

Diane Kripas, Division Chief
PA DCNR Bureau of Recreation and Conservation
717-772-1282
dkripas@pa.gov
www.dcnr.state.pa.us/cli