

Interview with Sarah Howdy, Boston Nature Center

By Barbara McLaughlin

On January 14th Sara Gardner and I spoke with Sarah Howdy, Education Manager at Mass Audubon's Boston Nature Center (BNC), to learn about the work BNC is doing in the Boston Public Schools (BPS) and about the programs they offer for teachers and students. Sarah has been with Mass Audubon for eight years, five years at the Museum of American Bird Art in Canton, and three years at BNC. She is passionate about science and art education. BNC is currently working with thirteen BPS schools through the *Science of Massachusetts*, *Growing with STEM*, and *GreenUp Boston Schoolyards* programs.

Science of Massachusetts and *Growing with STEM* are two deep-impact programs that are grant-funded and similar in structure. *Science of Massachusetts* is a statewide, multi-week curriculum created by Mass Audubon educators that engage students in hands-on, nature-based science. These units are aligned with the Massachusetts Science Curriculum Frameworks. Each lesson has three parts: a video, a journaling assignment, and a sense-making meeting with a Mass Audubon educator. Each lesson unfolds over the course of a week. The unit culminates with a field trip.

Growing with STEM is similar in format. BNC collaborates with teachers to develop units that align with Massachusetts Science Standards and integrate ELA, Math, History, and Art goals into lessons. BNC teacher naturalists Sarah and her colleague, Sal Burnette, visit classrooms weekly during the cycle. Lessons have an outdoor component whenever possible and follow an invitation-exploration-application-reflection format. Students are given nature journals for sketching, writing, and reflecting. Sarah said they have found that art and writing often engage students with the science they are learning. Each unit also culminates with a field trip. At each school, the teacher naturalists work with different teachers in different grade levels for six to eight weeks during the school year. Ideally, partnerships with schools follow a three-year cycle. In the first year, teachers receive the full support of the teacher naturalist. In the second year the model transitions to the teacher and naturalist co-teaching lessons. In the third

year, the teacher receives coaching support from the naturalist. BNC is also exploring what it would look like to have the teacher naturalist work with the same teachers throughout the school year as Sal is doing at the BTU School. Each program is based on the needs of the school and may look slightly different from school to school. All offerings are dependent upon BNC staffing capacity. Sarah told us that feedback from teachers suggests that they are continuing to implement the units after the grant is over. She added that teachers express an appreciation of journaling and the benefits of outdoor learning.

Growing with STEM culminates with the *GreenUp Boston Schoolyards* program. The goal of the program is to increase climate resiliency and climate literacy with students, school communities, and surrounding neighborhoods by creating beautiful spaces in schoolyards. These spaces showcase native plants and sustainable landscape designs. Sarah meets with teachers and principals to create a customized plan for their outdoor space. Students are often involved in the planning process. Then there is a full-day planting event at each school. There are different levels of maintenance for these gardens. This could involve fall planting and spring clean-ups and replanting. Sarah connects with Michelle Martinat in BPS Facilities on choosing schools and maintenance of the gardens. *GreenUp Boston Schoolyards* is funded by a grant from Liberty Mutual. It does not include irrigation. Schools like the Manning encourage neighborhood support for maintenance and watering. The Lyon Upper School has a garden club which is responsible for maintenance.

Teachers who are interested in any of these programs can reach out to Sarah for more information. Sarah explained that they hope to increase staffing levels at BNC and are currently limited in their capacity to take on new schools. They may have to keep interested schools in mind for the future. Sarah's email is: showdy@massaudubon.org.

BNC does have other opportunities for teachers and students. They offer field trips on a wide variety of engaging topics. Each two-hour presentation is led by a BNC teacher naturalist and can be offered at BNC or at the school. Topics include *Boston Animals and Their Homes* for K-Grade 2; *Boston Birds—Adaptations* for

Grades 3-5; and *Comparing and Contrasting Ecosystems* for Grades 6-8. Information about these programs and how to apply for them can be found on their website: bnc@massaudubon.org. The cost of the field trips is based on a sliding scale.

The Boston Nature Center is open daily from 10:00 a.m. to 4:00 p.m. Admission is free for all ages. There are walking trails through meadows, woods, and wetlands habitats. The George Robert White Environmental Conservation Center offers seasonal programs. We are grateful to Sarah for this opportunity to learn more about this wonderful resource in our community.