THE SCHOHARIE RIVER CENTER'S ENVIRONMENTAL STUDY TEAM A COMMUNITY BASED WATERSHED EDUCATION PROGRAM PROGRESS REPORT 2010

John McKeeby¹, Jessica M. Jones², Mary Rachael Keville³, Zach McKeeby³¹Schoharie River Center, ²Schoharie High School, ³Duanesburg High School

The Schoharie River Center, Inc is a non-profit environmental education and cultural arts organization located in the Schoharie and Mohawk River Watershed. Formed in 1999 to promote environmental consciousness, education and understanding about the ecology of the Schoharie Creek and the history, folklore and culture of its people, the SRC produces a variety of family friendly, community centered activities open to the public, in order to forge a connection between the natural history and ecology of the Schoharie Watershed and the people who live and work in the areas it flows through. To accomplish our mission the River Center (SRC) responds to community needs and provides a variety of unique community and community based and centered programming focused on increasing our community members' (adults and youth) capacity to learn, grow, and develop socially, physically and intellectually.

The SRC programs are family focused and we encourage parental participation in all programs. Regular programming includes a Silent Movie series (since 2003) featuring live musical performance and a locally focused Citizen Scientist speaker series (since 2007). Development programming includes Environmental Study Team EST (2002) and the Archeology Field School (2003). SRC presents community celebratory events as well: Bronze-Back Round Up which is an annual fishing derby and pancake breakfast (since 2002) and Old Home Sunday which is our fall music series featuring local artists and musicians (since SRC also supports ongoing traditional folk arts and culture programs funded through the New York State Council on the Arts (NYSCA).

The SRC's Environmental Study Team youth development program is a year round environmental science based, career / life skills development program for youth ages 13 – 18. The Environmental Study Team's focus is to assist and encourage youth members to be aware

of and active in the monitoring, improvement, and stewardship of their local environmental and fresh water resources through participating in ongoing community based, professionally supervised water quality & biomonitoring assessments projects, organized stream bank clean-ups, and community education activities. In operation since 2002, the SRC's EST program operates in a diverse and wide variety of local communities including the City of Schenectady Watershed), the Duanesburg-(Mohawk Esperance-Burtonsville Area (the Normans kill and Schoharie Creek watershed), and in the Gilboa-Conesville-Blenheim area (Schoharie and NYC watersheds). The program encourages and assists youth team members to utilize, integrate, and apply what they are learning in their academic studies (Science, Math, History, Language, and Arts) as well as their own interests and talents, to local environmental studies and field biology research, community archeology, and out-door recreational activities of the EST program. Working with over 50 youth and their families attending seven different area school districts, EST activities offer youth an opportunity to participate with both peers and adults in positive, constructive, task oriented projects which both enhance the quality of life of the community and reinforce goal directed, responsible behavior personally environmental study team members. The EST program is a long term, supportive involvement with youth as they grow and develop from ages 13 -18. Typically youth and their families participate in the EST program for 3 – 5 years, from middle school (7-8 grade) through graduation (12th). Often youth members recruit their friends and siblings into the EST program and strong friendships between youth from different communities and backgrounds evolve through their on-going involvement in the program. In addition, the program also focuses on encouraging youth members to be physically fit and active throughout their life by involving them in life-long mastery based, out-door recreational activities and hobbies such as

hiking, cross-country skiing, snow shoeing, swimming, sailing, kayaking & canoeing, fishing, orienteering, nature photography and maple-syrup making. Through all the activities of the program, EST strives to foster in the youth members a sense of personal competence and self-confidence, to encourage their life-long interest in learning, to instill the value of stewardship for our local environment, and to promote positive social behavior and an involved citizenship.

Over the past year, (2010) the Schoharie River Center's EST programs have conducted monitoring, assessment and survey activities on a variety of streams and rivers within the Mohawk and Schoharie Watershed for a variety of purposes, including Youth development skills practice, educational, recreational, and scientific monitoring. Streams sites being monitored regularly by EST teams during 2010 include the Schoharie Creek and its tributaries (Wilsey Creek, Fox Creek, Bowman's Creek, Mine kill) from the Gilboa Dam to the Mohawk River, the Mohawk River and tributaries (the Alplaus creek (Glenville) and the Plotter kill), the headwaters of Normans kill (and Bozenkill), and the Manor kill (NYC watershed). In addition to stream monitoring, EST youth have participated in ongoing stream bank clean-ups at all sites where they have tested, as well as organized formal riparian area clean-ups and natural vegetation plantings. The EST groups work to document wildlife and biodiversity, threats to natural habitat, invasive species, and the impacts of human activities on local ecology.

In addition to stream monitoring activities, since 2003, EST program youth have worked with archeologists from Hartgen Archeological Associates conduct archeological to investigations along the Schoharie and within the This year, two, week long watershed. Archeology Field Schools were conducted by the SRC and Hartgen for EST youth within the Schoharie Watershed in Burtonsville and at the NYS Power Authority's Lansing Manor Visitor's Center in Blenheim. Exhibits of the artifacts uncovered during the archeology field schools are displayed at both the Power Authority and at the Schoharie River Center.

In 2010 EST youth from all three local chapters competed in the regional Envirothon Competition. Twenty-seven EST program youth made-up five teams at the annual competition

sponsored by County Soil and Water Conservation Districts and held at the New York Power Authority in Blenheim, NY.

The most significant impact of this project has been how it has been able to engage and interest a wide range of young people (teenagers) in learning about the natural world and in the realization that the local environment (the area of the Schoharie and Mohawk River Watersheds) belongs to them to both enjoy and protect. The youth members have come to understand the connection and interrelationship between their life and the life of the natural world around them. They learn to experience empathy and gain respect for the many forms of life that inhabit and depend upon the local fresh water streams, rivers and creeks. Through participating as part of the Environmental Study Team, our youth members come to recognize that they have skills, talents and interests that often have gone unrecognized to themselves, their families, and their teachers. They become concerned about how human activity impacts the places in the natural world they care about. They realize that they have the power and responsibility to take action both as individuals and collectively, to act to improve and protect the local environment, and pass on their sense of stewardship to others. They also learn the skills and gain the selfconfidence to take a leadership role within their schools and community to promote and encourage responsible and healthy behavior, practices and attitudes among their peers in the community.

Through EST youth have the opportunity to learn about the natural world and themselves. They learn to master the skills necessary to conduct valid scientific research, navigate through the environment, and interact positively with other people (adults as well as youth) as fellow human beings, concerned about their local environment and community. The EST program provides interested youth with a community or group they can belong to, invest in and feel positive about because they are contributing to the well being of the community. Their contribution is recognized also by their community, with various community organizations and individuals seeking out the EST team as exhibitors and local experts about their local fresh water streams and the local environment. The EST program works to create generation of environmentalists, new

concerned about how to preserve and create a better world for all living creatures.

What makes the SRC EST model successful is its emphasis on community involvement, the inclusion of rigorous scientific based field research, and its holistic approach to ecology where youth participate as a group year-round in activities that follow the natural cycles of nature and the seasons. (Fresh stream water quality monitoring, hiking, winter forest ecology, forestry, Maple syrup, etc.) Participation in the Environmental Study Team is not contingent upon maintaining a certain grade, or being able to afford expensive out-door gear or equipment. Rather, all that is necessary is an interested youth and a parent or guardian willing to agree to let the youth participate. This program model is especially suited to community-based organizations that are interested in local youth development, and community based watershed education and outreach. Regardless of location (whether rural, suburban, or urban), the model can be adapted to fit the unique environmental and cultural characteristics of any community.

The program has been recognized nationally, most recently in 2011, by the Sea World / Busch Garden Conservation Matters Program, with an Environmental Excellence Award. Youth from the program will be traveling to Sea World in Orlando Florida in April to accept the award.

In December 2010 the Schoharie River Center purchased a 20-acre property on the Schoharie Creek in Burtonsville to establish a community based Environmental Education Center and Riparian Area Nature Preserve. The property that includes a small house, two car garage and 20 acre natural hardwood forest along the Schoharie Creek is being transformed into a biological research station available both the use of youth in the EST program and outside researchers and students interested in any aspect research within the watershed. The SRC is interested in creating a site that will foster and support research interest in the watershed by area and regional university students and faculty. The facility will enable short-term residency for researchers as well as access to onsite laboratory facilities, meeting space, and easy access to natural areas for research activities. The Environmental Center is located, on the Schoharie Creek (about 1/4 mile frontage on the Creek) and very near over 3000 acres of protected NYS forest (Charleston State Forest) and nature preserve lands (300 acre) owned by the Hudson Mohawk Land Conservancy. For more information about the Schoharie River Center please contact John McKeeby. Executive Director. schoharierivercenter@juno.com or go to our website: www.schoharierivercenter.org.



Environmental Study Team 2010, Schoharie Creek