Facilitating social learning in urban environmental education

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Social learning processes in natural resource management incorporate interaction between actors, co-creation of knowledge, social outcomes, and hands-on activities, which result in building new shared understanding of complex systems, better relationships among participants in adaptive co-management, changes in policy and improved collective action (Muro and Jeffrey, 2008). One potential tool for facilitating social learning among youth groups is Urban Planet (http://UrbanPlanetAtlas.org). Developed by the Stockholm Resilience Centre, Urban Planet offers a platform to depict challenges, solutions, and dynamics related to urban social-ecological systems through the lens of resilience and ecosystem services, and to share this knowledge with local actors. In this paper we explore how Urban Planet contributes to social learning in an urban environmental education program at Rocking the Boat in the Bronx, New York City.

One of after-school programs at Rocking the Boat teaches high school students about the environment through environmental restoration. Since 2006 students at Rocking the Boat have conducted oyster reef restoration in the Bronx River in collaboration with NGOs (NY/NJ Baykeeper and Bronx River Alliance) and government agencies (NYC Department of Parks & Recreation). While hands-on restoration is often an important component of social learning, one missing element of social learning at Rocking the Boat was youth’s participation in creation of knowledge shared by multiple stakeholders. In May-October 2010, we conducted participatory research with seven students and an educator at Rocking the Boat. To enhance social learning process while implementing oyster reef restoration, youth at Rocking the Boat used Urban Planet to: (1) foster content learning and understanding of complex systems through discussion of resilience and social-ecological systems with educators and researchers; (2) reflect on long-term goals of restoration through collecting the data about ecosystem services enhanced by oyster reef restoration; (3) acquire skills necessary to communicate ideas about restoration through conference presentations and video; (4) enhance relationships with partner organizations through discussions and interviews about oyster restoration with their staff; (5) share new knowledge about the role of oyster reef restoration with other organizations through Urban Planet portal (go Urban Planet > Solutions > New York City > Rocking the Boat); and (6) build a global learning community with other urban environmental education programs at the Future Cities, Future Citizens seminar in Shanghai (PDF: http://tiny.cc/RTB, videos: http://tiny.cc/RTB1, http://tiny.cc/RTB2).

While prior to engagement with Urban Planet, youth at Rocking the Boat were already engaged in restoration, they rarely participated in designing restoration activities with adults or other organizations, or in the larger policy process related to natural resources in communities. Our preliminary observations indicate that the use of Urban Planet may enhance collaborative creation of knowledge and reflection among youth, which had been a weak element of social learning in this urban environmental education program in the Bronx. Whether social learning facilitated by Urban Planet, perhaps combined with greater participation of youth with other organizations engaged in local restoration efforts, helps to foster more meaningful engagement of youth in adaptive co-management processes remains to be seen.