7-2008

Small Center, Big Impact: Heidelberg College's National Center For Water Quality Research

Anne Stearns
Heidelberg College

Gary Winston
Heidelberg College

Abstracts of presentations given in Session 5 of the UCOWR conference.

5.10

Small Center, Big Impact: Heidelberg College's National Center For Water Quality Research

Presenter **Ms. Anne Stearns**
Heidelberg College National Center for Water Quality Research
Tiffin, OH USA
(419)448-2204 astearns@heidelberg.edu

Co-Author(s)

Gary Winston, Heidelberg College National Center for Water Quality Research, Tiffin, OH, USA, gwinston@heidelberg.edu

---

Small Center, Big Impact: Heidelberg College's National Center For Water Quality Research

The symbiotic relationship that exists between the undergraduate students in the water resources program at Heidelberg College and the National Center for Water Quality Research staff benefits both students and water quality efforts. The NCWQR research staff investigates water quality needs at various scales. Focus has centered on agricultural and urban land-use practices, their effects on water quality and watershed management: samples are obtained from private groundwater wells for chemical analysis; wetlands, primary headwater streams and agricultural drainage ditches are assessed for habitat quality and biological diversity as well as chemical nutrient loads; large river and lake systems are investigated for oxygen depletion, and sediment, nutrient and contaminant effects. The water resources curriculum at Heidelberg College requires course completion across the natural sciences and features both research and internship options. Several members of the NCWQR research staff have joint appointments at the College to teach traditional, as well as applied, water-related courses. In addition, water resources undergraduate students at Heidelberg have the opportunity to work in the NCWQR chemical and biological research laboratories performing analyses essential to the research efforts and can co-author research publications. Further out-of-classroom experience is provided by an interdisciplinary student design team, mentored by both NCWQR staff and College faculty, which entered an innovative solution to capture parking runoff in an EPA sustainable design competition. Graduates of the water resources program now hold policy-making positions in research and government. The NCWQR was a driving force in the creation, and continued progress, of a coalition of community leaders and scientists that is responsible for development and implementation of agricultural and urban BMPs to improve water quality in the local watershed. The NCWQR initiated a low-cost well testing program that is coordinated through county health departments and is now operating in many states across the Midwest. NCWQR scientists have been invited to participate in a statewide nutrient task force to address new concerns about Lake Erie water quality based on findings generated from the NCWQR's own Lake Erie and Ohio River Tributary Loading monitoring program data. This dataset and an analysis template are available at our website: http://www.heidelberg.edu/wql