

QUARTERLY PROGRESS REPORT

Organization:

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QUARTERLY PROGRESS REPORT - 2007

Intermittent Stream Progress Report – January 2008

Over the past several months, the intermittent stream team has been processing invertebrate samples, analyzing validation data from last summer, presenting preliminary results of ATtILA analysis and reference site selection and preparing for the next sampling season.

Ross Vander Vorste is currently sorting invertebrate samples collected from stream containing water last summer. Sorted samples have been QA'd and we are beginning to move into the identification phase.

Eric Rasmussen is currently summarizing habitat data collected from random, targeted and reference streams this past summer. These data were collected as part of the stream validation process. They were initially entered onto Toughbook computers in the field and have now been transferred into statistical files where summaries are being generated.

Both Ross and Eric were transferred to departmental GTA funds during the fall semester to conserve RA dollars. Their GTA assignments reduced effort on the project during that semester. Ross was awarded the department's GTA award for Fall Semester for his efforts in the classroom.

Results of project work have already been presented and/or submitted for presentation during several professional meetings. A list of presentation titles is shown below:

Troelstrup, N.H., Jr., S. Brich, E. Rasmussen, R. Vander Vorste, P. Lorenzen. 2007. Delineation of stream reference sites using ATtILA for the Northern Glaciated Plains ecoregion of South Dakota. Presented at the East Dakota Water Conference, Sioux Falls, SD.

Troelstrup, N.H., Jr., E. Rasmussen, R. Vander Vorste and S. Brich. 2008. Selection and validation of intermittent stream reference sites for eastern South Dakota: Evaluation of GIS-generated watershed condition scores against field validation data. Submitted for presentation at the Third Regional Meeting of the Western Wetlands Monitoring and Assessment Workgroup, Rapid City, SD.

Troelstrup, N.H., Jr. E. Rasmussen, R. Vander Vorste and S. Brich. 2008. Using ATtILA to assess headwater catchments within the Northern Glaciated Plains Ecoregion of eastern South Dakota. Submitted for presentation at the 2008 NABS meeting in Salt Lake City, UT.

Rasmussen, E., R. Vander Vorste and N.H. Troelstrup, Jr. 2007. Field validation of intermittent stream reference sites in eastern South Dakota. Presented during the Oak Lake Research Retreat, Oak Lake Field Station, SD.

In addition, a manuscript is in preparation for submission to *Environmental Management* describing the ATtILA and site validation processes and the selection of ecoregion-specific reference sites.

A letter has been written and submitted to collaborating landowners describing what was accomplished last summer and plans for the coming summer. A follow-up letter will be mailed later this spring with a more definitive sampling schedule.

Preparations for the next field season have already begun. Another field vehicle has been ordered from the state motor pool to allow two accommodate two sampling teams. Position announcements have been posted for the hiring of undergraduate field technicians. These technicians would be brought on board in March for training prior to the beginning of the field season. One or two of these technicians will be retained the following school year to assist with invertebrate sample processing. Supplies and equipment will be assembled and prepared during February. Field work is anticipated to commence on April 1. It is presently our intent to sample all 60 of our streams on a monthly frequency until they dry. Two separate sampling teams will sample two streams per day through the season.

Our original project budget was written for a one-year project. The timeline was extended to two full years, but our total budget remained unchanged. We have attempted to conserve salary dollars for students by using graduate teaching assistantships during the fall semester. We anticipate the coming field season to be the major expense bearing period of the project. Most of the salary, supply, travel and analytical chemistry budget will be used during that period. The current budget balances are shown in the table below.