ORAL PRESENTATION

SIMRIVER AN INTERNATIONAL EDUCATIONAL TOOL EXPANDING UNDERSTANDING OF AQUATIC ECOSYSTEMS AND ENHANCING APPRECITAON OF DIATOMS

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The United Nations designated the safety and sanitation of water resources as one of its millennium goals, and suggested the issue be solved via international cooperative efforts. . Science education serves a critical role in promoting awareness nationally and internationally. We focus specifically on riverine environments, as the ecosystem is common in most countries and a water resource to many communities. SimRiver, a computer simulation developed for expanding the understanding of the relationship

between human activity and water quality using diatoms, is a useful tool for achieving this aim. The computer software has been introduced in to K-12 science classrooms globally. Within the United States students in Minnesota and Hawai'i have been exposed to curricula incorporating SimRiver. This presentation will introduce the SimRiver software; specifically detailing how the program is integrated into science classrooms to meet state required learning standards and expands student awareness of urban planning and the impact of human activities on aquatic systems. Assessment results suggested that classes exposed to the curricula meet or exceed outcomes produced by traditionally employed curricula and that the student's are motivated to further student river systems and diatoms on an independent basis. Moreover, we are developing multilingual educational tools on the web site, which is composes a webbased SimRiver program, video movies, visual tools and a reporting system from classes using these tools for international communication to accomplish the goal.