

Prof. to use NSF grant to study toxic emissions

Environmental Science Prof. Todd Scanlon receives funds to further current research

By Max Hall and Joanne Tu

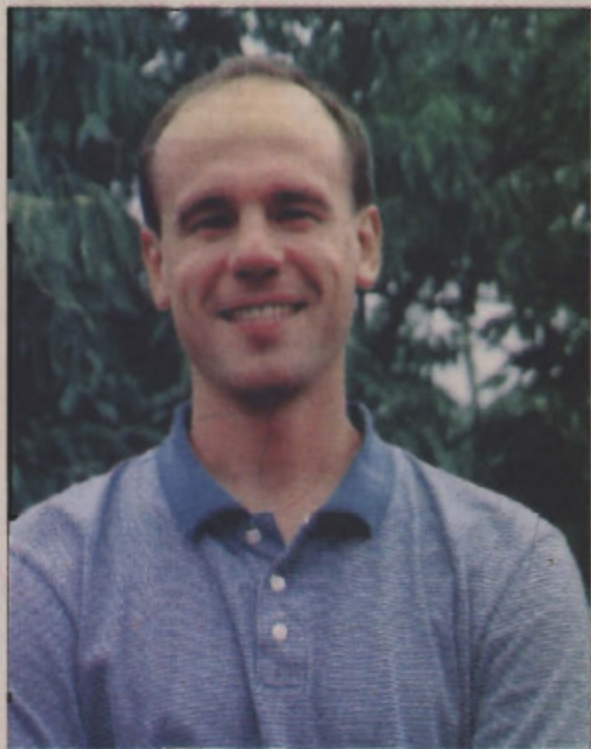
Covdier Daily Staff Writers

Environmental Sciences Prof. Todd Scanlon recently received a research grant from the National Science Foundation that will allow him to further his research on the problem of toxic emissions in Virginia.

Elizabeth VanderPutten, chair of the National Science Foundation's CAREER Coordinating Committee, said the \$449,000 award is meant to encourage younger faculty to pursue research and community education.

"We consider this award to be the most prestigious award to young faculty by NSF [and] we expect the

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Courtesy Todd Scanlon

NSF | Scanlon to involve undergrads

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awardees to be the leading teacher-scholars over the next generation," VanderPutten said.

Scanlon said he will use the grant money to research nitrous oxide emissions as part of the Long-Term Ecological Research project at the University's Virginia Coast Reserve research station on the Eastern Shore.

Scanlon said nitrous oxide damages the ozone layer and is more potent as a greenhouse gas than carbon dioxide.

"Where we're taking these measurements is in an agricultural watershed where there are fertilizer applications that result in elevated nitrogen levels and when the nitrogen gets broken down, this is where we get nitrous oxide emissions occurring," Scanlon said.

Scanlon said he will also research methyl mercury accumulation in the ecosystem at Shenan-

doah National Park.

"In areas where we wouldn't expect to see too much mercury, scientists have found elevated concentrations of mercury due to atmospheric deposition," Scanlon said. "The mercury deposition isn't natural; it comes from coal-fired power plants."

Scanlon added that he also hopes to involve undergraduates in the research and publication process.

In addition to atmospheric and environmental research, Scanlon will also instruct high school teachers and students about the water cycle.

VanderPutten said the National Science Foundation is pleased to award the CAREER grant to Scanlon.

"We're always thrilled because these are highly competitive proposals in which we expect a great deal — excellent research and excellent education," VanderPutten said.