

Tuesday, April 19, 2005

UCI Research Briefs

By **GARY ROBBINS**

The Orange County Register

Fossil fuel-generated nitrogen's negative effect on plant biodiversity cited

The growing amount of nitrogen being released through the burning of fossil fuels can cause common plants to thrive to the point where they overwhelm rarer species, reducing biodiversity, UC Irvine biologist **Katharine Suding** says in a study published in the Proceedings of the National Academy of Sciences (PNAS).

Suding and her colleagues base their conclusion on the nitrogen fertilization they performed on almost 1,000 plant species across ecosystems ranging from coastal salt marshes to grasslands to alpine and arctic tundra.

"We know that the levels of nitrogen will continue to increase due to fossil fuels, and we want to be able to forecast what impact it's likely to have on natural ecosystems," says Suding. The amount of nitrogen that most plants receive has roughly doubled since the 1940s, researchers says.

Study shows professionals' visual skills can improve

In a different PNAS study, cognitive scientist **Barbara Doshier** reports that it appears to be possible to improve the visual skills of pilots, radiologists and others who have to read visual displays with a high degree of accuracy.

Doshier and USC colleague Zhong-Lin Lu found that a small group of volunteers greatly enhanced their ability to spot targets and patterns if they trained on a fairly clear computer screen before moving on to one that had lots of visual clutter.

Antibody research funded

Chemist **Ken Shea** and bioengineer **Abe Lee** have received \$80,000 from the Henry Nicholas Foundation to search for ways to synthesize plastic antibodies that can be used for such things as diagnosing disease and sensing pollution in ecosystems.

Astronomer to use Keck

Astronomer **Aaron Barth** will travel to Mauna Kea, Hawaii, in mid-May to spend a couple of nights using one of the twin Keck telescopes. Barth mostly studies black holes in active galaxies. He was recruited from Caltech and will be part of the Center for Cosmology that UCI is creating.

Book on viruses has buzz

Virologist **Luis Villarreal** has caused a stir in academia with his new book, "Viruses and the Evolution of Life." The book examines the role viruses have or might have played in all forms of life, drawing interest from people Villarreal usually doesn't hear from, including paleontologists and structural biologists.

Copyright 2005 The Orange County Register | [Privacy policy](#) | [User agreement](#)