



## COVER

The influence of human society on the future of the world's forests and the role of forests in the global carbon cycle are discussed in the special section beginning on page 1435.

*Image: Micha Pawlitzki/Zefa/Corbis*

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*by Raman Sukumar*  
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## SPECIAL SECTION

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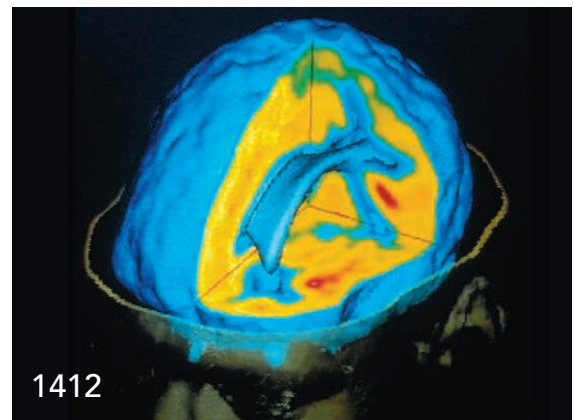
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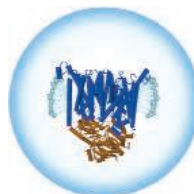
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www.sciencexpress.org



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## The Spread of Ras Activity Triggered by Activation of a Single Dendritic Spine

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When strengthened, individual synapses on dendritic spines contain an activated small regulatory protein that spreads to nearby spines, possibly altering their sensitivity.

10.1126/science.1159675

## PHYSICS

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V. Boyer, A. M. Marino, R. C. Pooser, P. D. Lett

Passing light through a warm cloud of rubidium atoms creates quantum mechanically entangled twin images.

10.1126/science.1158275

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N. P. Barrera, N. Di Bartolo, P. J. Booth, C. V. Robinson

Gas-phase lipid micelles protect a large complex of membrane proteins, allowing its subunit composition and ligand binding to be assessed by mass spectrometry.

10.1126/science.1159292

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K. Schawinski et al.

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10.1126/science.1160456

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A method that identifies pairs of proteins that are 8 nanometers apart produces a map of interacting proteins in living yeast, finding known and previously unknown networks.

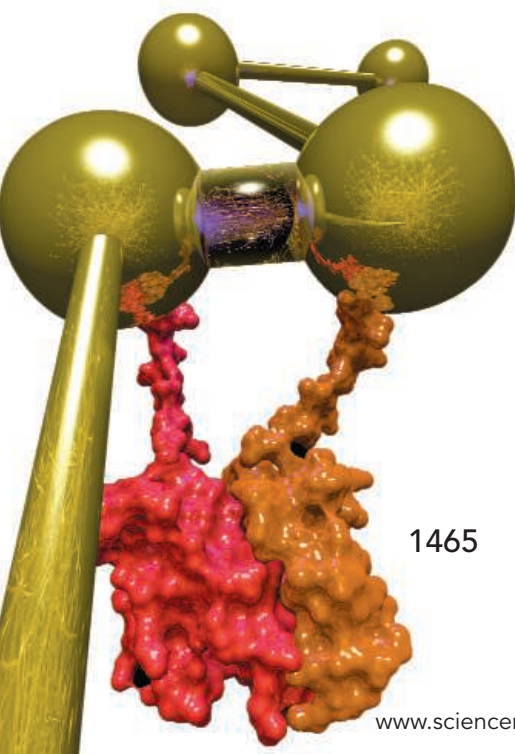
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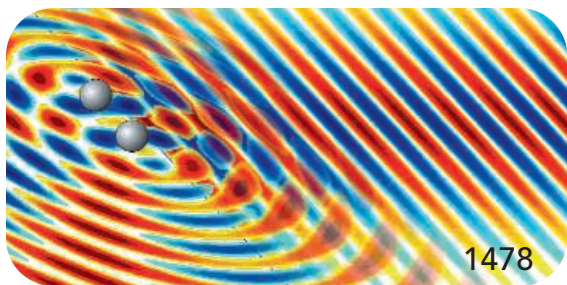


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>> *Science Podcast*

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[www.sciencereers.org](http://www.sciencereers.org)

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Coral dissolve in acidic waters.

## SCIENCE NOW

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HIGHLIGHTS FROM OUR DAILY NEWS COVERAGE

### A Volcanic Preview of Acidic Oceans

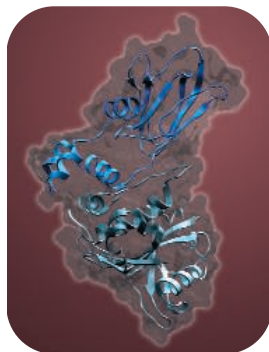
Natural experiment predicts which species will win and which will lose from rising carbon dioxide levels.

### Say Goodbye to Wimpy Paper

New nanopaper tougher than cast iron.

### To Stop a Seizure

An acidic brain blocks convulsions in mice—but only if they have the right ion channel.



A VHL and elongin B and C complex.

## SCIENCE SIGNALING

[www.sciencesignaling.org](http://www.sciencesignaling.org)

THE SIGNAL TRANSDUCTION KNOWLEDGE ENVIRONMENT

### PERSPECTIVE: Intracellular Signaling by Akt—Bound to Be Specific

*T. F. Franke*

Multiple interacting proteins modulate the activity of the serine/threonine kinase Akt.

### PERSPECTIVE: pVHL—A Multipurpose Adaptor Protein

*I. J. Frew and W. Krek*

The von Hippel-Lindau tumor suppressor controls transcription-dependent and -independent cellular processes.

### PODCAST

*E. M. Adler and A. M. VanHook*

Microvesicles carrying an oncogenic form of the epidermal growth factor receptor provide a mechanism for lateral spread of the malignant phenotype.

### GLOSSARY

Find out what ASC, ChIP, and SNS mean in the world of cell signaling.



## SPECIAL CONTENT

# Forests in Flux

## SCIENCE CAREERS

[www.sciencecareers.org/career\\_development](http://www.sciencecareers.org/career_development)

FREE CAREER RESOURCES FOR SCIENTISTS

### Science Careers Podcast: An Interview With Catherine Cardelús

*K. Travis*

The young rainforest ecologist talks about what it's like to work in the forest canopy.

## SCIENCE ONLINE FEATURE

### VIDEO: Forests in Flux

An accompaniment to this week's special section on the future of forests in light of climate change and human activity.

## SCIENCE PODCAST

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**320 (5882)**

*Science* **320** (5882), 1392-1524.

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