A seedling carpet dominated by *Dipteryx oleifera* (almendro) in the forest understory of Barro Colorado Island, Panama. Seedlings here have a lower probability of surviving when surrounded by neighbors of their own species. However, rare species suffer more from the presence of like neighbors than do common species, suggesting a mechanism that shapes species abundances in diverse tropical forest communities. See page 330.

**Photo:** Christian Ziegler
RESEARCH ARTICLE
294  Staphylococcus aureus Nonribosomal Peptide Secondary Metabolites Regulate Virulence
M. A. Wyatt et al.
Dipeptides produced by a major bacterial pathogen are essential for successful infection.

REPORTS
297  Observation of the Magnon Hall Effect
Y. Onose et al.
Spin excitations in an insulating ferromagnet exhibit an anomalous thermal Hall effect.
299  Single-Crystal X-ray Structure of 1,3-Dimethylcyclobutadiene by Confinement in a Crystalline Matrix
Y-M. Legrand et al.
A normally unstable hydrocarbon has been trapped and structurally characterized within a host crystal.
303  Disordering of an Organic Overlayer on a Metal Surface Upon Cooling
A. Schöll et al.
Strengthening a surface bond of an organic molecule upon cooling leads to disordering between molecules.
305  Biocatalytic Asymmetric Synthesis of Chiral Amines from Ketones Applied to Sitagliptin Manufacture
C. K. Savile et al.
Strengthening of the bond of an organic molecule to a silver surface upon cooling disrupts intermolecular ordering.
309  Computational Design of an Enzyme Catalyst for a Stereoselective Bimolecular Diels-Alder Reaction
J. B. Siegel et al.
Synthetic enzymes catalyze a carbon-carbon bond-forming reaction with high stereoselectivity and substrate specificity.
313  Meniscus-Conﬁned Three-Dimensional Electrodeposition for Direct Writing of Wire Bonds
J. Hu and M.-F. Yu
A micropipette helps guide the electrodeposition of copper and platinum wires for electronics connections.
319  Simulated Rapid Warming of Abyssal North Paciﬁc Waters
S. Masuda et al.
Computer simulations suggest a possible reason for the warming of North Paciﬁc bottom water during the past four decades.
322  Ocean Warming Slows Coral Growth in the Central Red Sea
N. E. Cantin et al.
Rising summertime sea surface temperatures are slowing the rate of growth of healthy corals in the Red Sea.
325  Shared Social Responsibility: A Field Experiment in Pay-What-You-Want Pricing and Charitable Giving
A. Gneezy et al.
Exchanging goods for money ends up beneﬁting buyers, sellers, and charities.
327  The Structure of cbb, Cytochrome Oxidase Provides Insights into Proton Pumping
S. Buschmann et al.
The third class of heme-copper oxidases reveals new structural solutions to achieve redox-driven proton translocation.
330  Asymmetric Density Dependence Shapes Species Abundances in a Tropical Tree Community
L. S. Comita et al.
Seedling survival in a tropical forest shows that species abundance is related to a species’ sensitivity to conspeciﬁc neighbors.
333  Trophic Structure and Community Stability in an Overﬁshed Ecosystem
A. C. Utne-Palm et al.
An endemic goby exploits jellyﬁsh and microbial biomass, partially restoring the food chain in the Benguela ecosystem.
336  Small Peptides Switch the Transcriptional Activity of Shavenbaby During Drosophila Embryogenesis
T. Kondo et al.
A conserved locus in insects encodes four small peptides that shift a transcription factor from repressor into activator.
339  Hedgehog Signaling Regulates Segment Formation in the Annelid Platynereis
N. Dray et al.
The processes that pattern body segmentation in annelids and arthropods both require the same signaling mechanism.
342  Chemoattraction to Dimethylsulﬁoniopropionate Throughout the Marine Microbial Food Web
J. R. Seymour et al.
A microﬂuidics device reveals a common response of bacterial plankton to sulfur compounds emitted by marine algae.
MERCURY’S exosphere is more varied and more complex than previously thought.

**Response to Comment on “Observational and Model Evidence for Positive Low-Level Cloud Feedback”**

A. J. Broccoli and S. A. Klein

Full text at www.sciencemag.org/cgi/content/full/329/5989/277-a

**Response to Comment on “Observational and Model Evidence for Positive Low-Level Cloud Feedback”**

A. C. Clement et al.

Full text at www.sciencemag.org/cgi/content/full/329/5989/277-b

**SCIENCE NOW**

www.sciencenow.org

*Highlights From Our Daily News Coverage*

Amazon Hit by Its Own Katrina

Severe storm moved down vast swaths of rainforest.

The Vaccine That Came In From the Cold

Genes from Arctic bacteria turn mammalian pathogens into vaccines.

Keeping Insulin Hanging Around

Long-lasting insulin shot shows promise in animals.

**SCIENCE SIGNALING**

www.sciencesignaling.org

*The Signal Transduction Knowledge Environment*

**RESEARCH ARTICLE: Regulation of Notch1 Signaling by Nr2—Implications for Tissue Regeneration**

N. Wakabayashi et al.

The cell survival pathway mediated by the transcription factor Nr2 facilitates tissue regeneration by promoting Notch1 signaling.

**RESEARCH ARTICLE: Signaling to Transcription Networks in the Neuronal Retrograde Injury Response**

I. Michaeli et al.

Robustness in nerve injury responses results from control of axon-to-soma signaling networks by multiple regulatory components.

**NETWATCH: MolecularMovies.org**

Learn how to make 3D animations illustrating molecular and cellular events; in Educator Sites.

**NETWATCH: Nuclear Receptor Resource (NRR)**

Explore the nuclear hormone receptor superfamily through a collection of databases, interactive pathways, and graphics; in Protein Databases.

**SCIENCE CAREERS**

www.sciencemag.org/career_magazine

*Free Career Resources for Scientists*

Veterinarian Scientists Bring Unique Perspectives to Translational Research

L. Chiu

D.V.M.-Ph.D.s are uniquely qualified to do research that involves sharing social responsibility with companies, genetic variants associated with kidney disease, bringing science to Washington D.C. schools, and more.

**SCIENCEPODCAST**

www.sciencemag.org/multimedia/podcast

Free Weekly Show

Download the 16 July Science Podcast to hear about sharing social responsibility with companies, genetic variants associated with kidney disease, bringing science to Washington D.C. schools, and more.

**SCIENCE INSIDER**

news.sciencemag.org/scienceinsider

Science Policy News and Analysis