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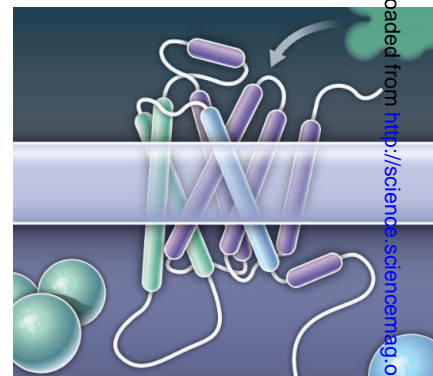
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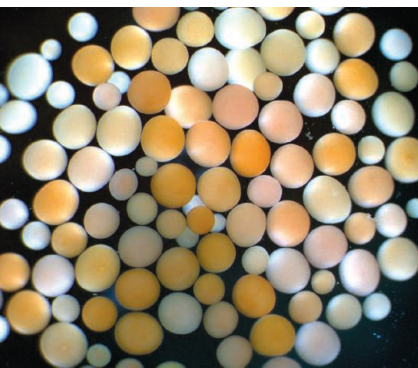
COVER

An adult male brown anole, *Anolis sagrei* (length ~150 millimeters from snout to tail), perches atop a branch. The diameter of the vegetation used by brown anoles is a strong selective force on limb length. Lizards inhabiting previously unoccupied islands in the Bahamas show genetic and morphological differences due to random and selective processes. See page 1086.

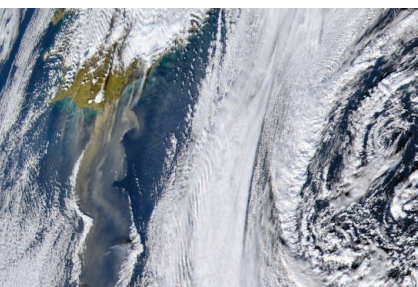
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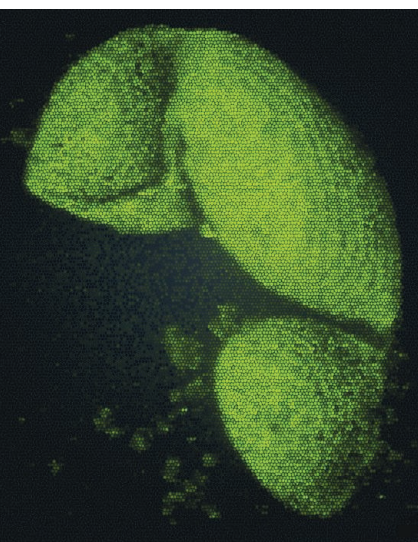
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The embryos of pelagic corals break up in waves yet survive to form smaller colonies.

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- 1072 Reactions of Solvated Electrons Initiated by Sodium Atom Ionization at the Vacuum-Liquid Interface
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- 1075 No Straight Path: Roaming in Both Ground- and Excited-State Photolytic Channels of $\text{NO}_3 \rightarrow \text{NO} + \text{O}_2$
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- 1086 Founder Effects Persist Despite Adaptive Differentiation: A Field Experiment with Lizards
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- 1099 Global Network Reorganization During Dynamic Adaptations of *Bacillus subtilis* Metabolism
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>> *Perspective p. 1056; Science Podcast*
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G. T. Henry et al.
New teachers face a steep learning curve, and those who fall off tend to leave teaching.

SCIENCEONLINE

SCIENCEEXPRESS

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Energy Capture from Thermolytic Solutions in Microbial Reverse-Electrodialysis Cells

R. D. Cusick et al.

Thermally induced salt gradients could augment the electricity generated by microbial fuel cells from wastewater.

10.1126/science.1219330

>> [Science Podcast](#)

Silicon Isotope Evidence Against an Enstatite Chondrite Earth

C. Fitoussi and B. Bourdon

Earth accreted from materials with a heterogeneous mix of chondritic meteorite compositions.

10.1126/science.1219509

Niche and Neutral Effects of Acquired Immunity Permit Coexistence of Pneumococcal Serotypes

S. Cobey and M. Lipsitch

The human immune response preserves antigenic variation in a bacterial pathogen.

10.1126/science.1215947

Interleukin-22 Drives Endogenous Thymic Regeneration in Mice

J. A. Dudakov et al.

Damage to the thymus caused by infection or radiation is reversed by a cytokine.

10.1126/science.1218004

Crystal Structure of Human Enterovirus 71

P. Plevka et al.

The structure of a virus linked to neurological disease reveals how drugs targeting viruses in this family can be modified.

10.1126/science.1218713

TECHNICALCOMMENTS

Comment on "Phonemic Diversity Supports a Serial Founder Effect Model of Language Expansion from Africa"

T. F. Jaeger et al.

Full text at www.sciencemag.org/cgi/content/ful/335/6072/1042-a

Response to Comment on "Phonemic Diversity Supports a Serial Founder Effect Model of Language Expansion from Africa"

Q. D. Atkinson

Full text at www.sciencemag.org/cgi/content/ful/335/6072/1042-b

SCIENCENOW

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Highlights From Our Daily News Coverage

Shame on the Rich

Unethical behavior more common in upper classes.

http://scim.ag/Shame_Rich

The Red-Dress Effect

Men see women wearing red as more open to romantic advances.

<http://scim.ag/Red-Dress>

Bacteria-Killing Viruses Wield an Iron Spike

Researchers figure out how bacteriophages gain entry into cells.

http://scim.ag/Viral_Attack

SCIENCE SIGNALING

www.sciencesignaling.org

The Signal Transduction Knowledge Environment

28 February issue: <http://scim.ag/ss022812>

EDITORIAL GUIDE: Focus Issue—A Cell's Sense of Direction

W. Wong

Research reveals new mechanisms for cell migration and chemotaxis.

RESEARCH ARTICLE: Diverse Sensitivity Thresholds in Dynamic Signaling Responses by Social Amoebae

C. J. Wang et al.

PERSPECTIVE: Chemoattractant Signaling in *Dictyostelium*—Adaptation and Amplification

P. A. Iglesias

Dictyostelium cells sense and interpret gradients by combining an incoherent feedforward loop and an amplification step.

RESEARCH ARTICLE: PTEN Protein Phosphatase Activity Correlates with Control of Gene Expression and Invasion, a Tumor-Suppressing Phenotype, But Not with AKT Activity

P. Tibarewal et al.

The lipid and protein phosphatase activities of PTEN are both required for glioma cell invasion and many of its effects on gene expression.

PERSPECTIVE: How Actin Gets the PIP

S. E. Moss

The relative concentrations of different phosphoinositide species may dictate whether actin comets or membrane ruffles are formed.

SCIENCE TRANSLATIONAL MEDICINE

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Integrating Medicine and Science

29 February issue: <http://scim.ag/stm022912>

RESEARCH ARTICLE: A Biophysical Indicator of Vaso-occlusive Risk in Sickle Cell Disease

D. K. Wood et al.

PODCAST

J. M. Higgins and M. L. Frisk

An ex vivo microfluidic device can stratify sickle-cell patients on the basis of dynamic blood properties.

RESEARCH ARTICLE: Productive Replication of Ebola Virus Is Regulated by the c-Abl1 Tyrosine Kinase

M. García et al.

Ebola virus growth is regulated by a c-Abl tyrosine kinase, which modulates the viral protein VP40, and can be blocked by c-Abl antagonists.

RESEARCH ARTICLE: HIV-Specific Cytolytic CD4 T Cell Responses During Acute HIV Infection Predict Disease Outcome

D. Z. Soghoian et al.

PERSPECTIVE: CD4⁺ T cells and HIV—A Paradoxical Pas de Deux

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A robust CD4⁺ T cell response during early HIV infection predicts a slower progression to overt disease.

PERSPECTIVE: Toward a Meningitis-Free World

S. Black et al.

New vaccines against serotypes A, C, W, Y, and B of meningococcal meningitis may allow elimination of the disease.

SCIENCE CAREERS

www.sciencereers.org/career_magazine

Free Career Resources for Scientists

Taken for Granted: Foreign Invasion

B. L. Benderly

What happens when an influx of established talent invades a small research field?

http://scim.ag/TFG_Invasion

Young Spanish Scientists in Limbo

E. Pain

Tighter research budgets and bureaucratic delays threaten to derail the careers of many young scientists in Spain.

<http://scim.ag/SpanishLimbo>

Perspective: Preparing for a PUI Career

R. N. Austin

A chemistry professor at a top liberal arts college offers advice on preparing for jobs at colleges like hers.

http://scim.ag/PUI_Prep

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Science Policy News and Analysis

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