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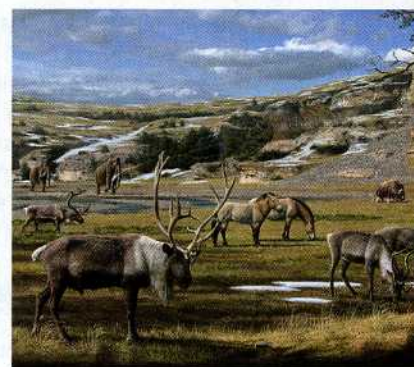
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Review Summary; for full text:
<http://dx.doi.org/10.1126/science.1239176>

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ON THE WEB THIS WEEK

>> **Science Podcast**

This week's show features a segment on recent research into treatments for Down syndrome and a roundup of shorts from our daily news site.

>> **Find More Online**

Check out the latest in a series of Perspectives on Challenges in Climate Science at www.sciencemag.org/extra/climate.



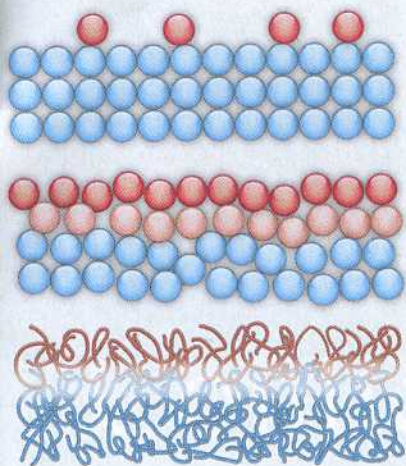
COVER

A portrait of a tawny crazy ant worker (*Nylanderia fulva*). Tawny crazy ants, native to central South America, are invading the southeastern United States and, in some places, displacing the current dominant South American ant invader, red imported fire ants (*Solenopsis invicta*). A notable ability to detoxify the venom of imported fire ants apparently underlies the success of tawny, crazy ants. See pages 974 and 1014.

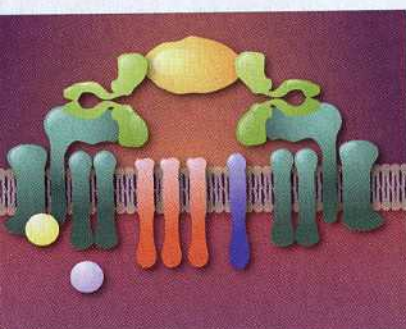
Photo: ©Alex Wild/alexanderwild.com

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ESCRT proteins repair small wounds in the plasma membrane by shearing off damaged portions.

Research Article Summary; for full text: <http://dx.doi.org/10.1126/science.1247136>

987 **Lost in Transition: Start-Up of Glycolysis Yields Subpopulations of Nongrowing Cells**
J. H. van Heerden et al.

One source of nongenetic variation in yeast can be traced to distinct steady-state levels of glycolysis.

Research Article Summary; for full text: <http://dx.doi.org/10.1126/science.1245114>

REPORTS

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Local interstellar conditions play a role in ordering very-high-energy cosmic rays in the Sun's immediate environment.

990 **Nanoporous BiVO₄ Photoanodes with Dual-Layer Oxygen Evolution Catalysts for Solar Water Splitting**
T. W. Kim and K.-S. Choi

A high-surface-area morphology of bismuth vanadate enhances the proportion of photogenerated holes that can oxidize water.

994 **A Direct Quantitative Measure of Surface Mobility in a Glassy Polymer**
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A step geometry is used to probe the behavior of a glassy polymer above and below its glass transition temperature.

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999 **Rapid Thinning of Pine Island Glacier in the Early Holocene**
J. S. Johnson et al.

Pine Island Glacier in Antarctica thinned rapidly, as it is doing now, at least once before in the past 8000 years.

1002 **Promoter-Bound Trinucleotide Repeat mRNA Drives Epigenetic Silencing in Fragile X Syndrome**
D. Colak et al.

An abnormal activation of gene silencing underlies fragile X syndrome.

1006 **Phonetic Feature Encoding in Human Superior Temporal Gyrus**
N. Mesgarani et al.

The human auditory cortex encodes what speech sounds like.

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1010 **Detection of a Recurrent DNAJB1-PRKACA Chimeric Transcript in Fibrolamellar Hepatocellular Carcinoma**
J. N. Honeyman et al.

A rare form of liver cancer affecting young adults expresses a chimeric kinase that may contribute to pathogenesis.

1014 **Chemical Warfare Among Invaders: A Detoxification Interaction Facilitates an Ant Invasion**
E. G. LeBrun et al.

After fire ants invade, they can be invaded in turn by tawny crazy ants.

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1017 **Resurrecting Surviving Neandertal Lineages from Modern Human Genomes**
B. Vernot and J. M. Akey

Ancestral Neandertal sequences within extant humans reveal that positive and purifying selection has occurred.

1021 **Molecular Editing of Cellular Responses by the High-Affinity Receptor for IgE**
R. Suzuki et al.

One receptor uses different signals to achieve different outcomes.

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1025 **Cell Surface ABP1-TMK Auxin-Sensing Complex Activates ROP GTPase Signaling**
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An alternate signaling route for the plant hormone auxin goes directly inside from the cell surface.

SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Periodicals Mail postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 2014 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$149 (\$74 allocated to subscription). Domestic institutional subscription (51 issues): \$990; Foreign postage extra: Mexico, Caribbean (surface mail) \$55; other countries (air assist delivery) \$85. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Publications Mail Agreement Number 1069624. Printed in the U.S.A.

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