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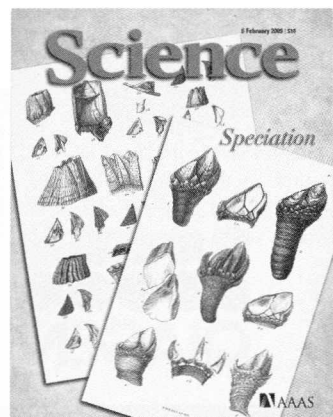


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Charles Darwin's abiding interest in the classification of barnacles, illustrated here, was one of the inspirations for his investigations into the origins and diversification of species. *Science* marks Darwin's 200th birthday with a special section on speciation beginning on page 727.

Image: Illustrations by George Sowerby, reproduced with permission from *The Complete Work of Charles Darwin Online*, John van Wyhe, Ed. (<http://darwin-online.org.uk>); background: iStockphoto.com

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An uneven pattern of local sea-level rise would result from the collapse of the West Antarctic Ice Sheet.

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M. R. Krumholz et al.

Numerical simulations show that instabilities can channel gas into growing massive stars despite their high radiation pressure.

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- 757 **Confined Crystallization of Polyethylene Oxide in Nanolayer Assemblies**

H. Wang et al.

Squeezing ultrathin polymer layers can induce crystallization and decrease their gas permeability.

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- 760 **Nitrogen-Doped Carbon Nanotube Arrays with High Electrocatalytic Activity for Oxygen Reduction**

K. Gong et al.

Carbon atoms in nanotubes are activated by nitrogen doping and catalyze oxygen reduction at high pH.

- 764 **Anomalously Metal-Rich Fluids Form Hydrothermal Ore Deposits**

J. J. Wilkinson et al.

The metal contents of the fluid inclusions that create lead-zinc ores have been drastically underestimated.

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- 767 **Signature of the End-Cretaceous Mass Extinction in the Modern Biota**

A. Z. Krug et al.

Increased rates of marine bivalve speciation after the Cretaceous-Tertiary extinction were most marked in the tropics.

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- 771 **A Great-Appendage Arthropod with a Radial Mouth from the Lower Devonian Hunsrück Slate, Germany**

G. Kühl et al.

Fossil evidence for the great-appendage arthropods extends to more recent periods by about 100 million years.

- 773 **Two Thresholds, Three Male Forms Result in Facultative Male Trimorphism in Beetles**

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A clade of dung beetles can alter their reproductive tactics by switching between three male forms.

- 776 **Sequential Sympatric Speciation Across Trophic Levels**

A. A. Forbes et al.

A host shift by a fly is causing its wasp parasite to undergo changes leading to speciation.

- 779 **Evolution of the *Drosophila* Nuclear Pore Complex Results in Multiple Hybrid Incompatibilities**

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Nuclear pore complex proteins are involved in lethal gene interactions in *Drosophila melanogaster*-*D. simulans* species hybrids.

- 782 **Queen Ants Make Distinctive Sounds That Are Mimicked by a Butterfly Social Parasite**

F. Barbero et al.

Sounds made by queen ants denoting rank are copied by the larvae and pupae of a parasitic butterfly, facilitating their infiltration into ant colonies.

- 785 **Stability Predicts Genetic Diversity in the Brazilian Atlantic Forest Hotspot**

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- 789 **Orc1 Controls Centriole and Centrosome Copy Number in Human Cells**

A. S. Hemerly et al.

A DNA replication factor ensures that only two centrioles are formed during cell division in animal cells.

- 793 **Function of Mitochondrial Stat3 in Cellular Respiration**

J. Wegrzyn et al.

A protein that has a nuclear function as a transcription factor also functions to support respiration in the mitochondria.

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- 797 **Platelets Kill Intraerythrocytic Malarial Parasites and Mediate Survival to Infection**

B. J. McMorran et al.

Mouse and human platelets bind malarial-infected red cells and kill the parasite within.

- 800 **Changes in Cortical Dopamine D1 Receptor Binding Associated with Cognitive Training**

F. McNab et al.

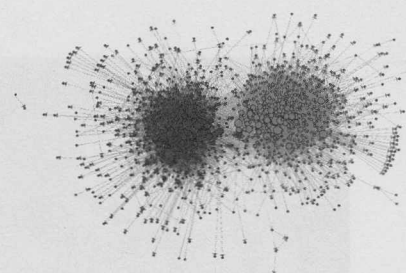
Training of working memory alters brain biochemistry by changing the density of cortical dopamine receptors.

>> *Science Podcast*

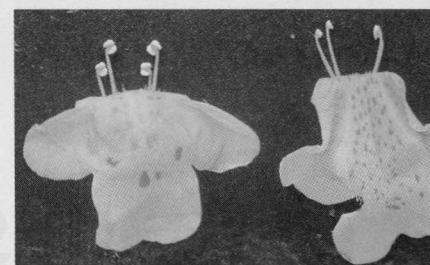
- 802 **Axon Regeneration Requires a Conserved MAP Kinase Pathway**

M. Hammarlund et al.

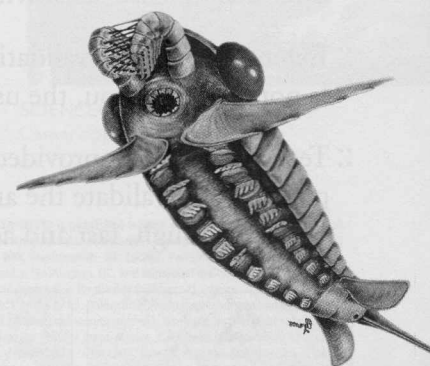
Axon regeneration in adult nematode worms has distinct signals that are independent of earlier developmental programs.



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