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Review Summary; for full text: http://dx.doi.org/10.1126/science.1246843

ON THE WEB THIS WEEK

>> Science Podcast
On this week’s show: avoiding quantum back-action effects and a roundup of stories from our daily news site.

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COVER

A male stick insect (Timema knulli) sitting on its host redwood (Sequoia sempervirens) in the Landels-Hill Big Creek Reserve, Big Sur, California. The process of Timema populations adapting to different hosts has repeatedly initiated parallel genetic changes in this group of insects. In turn, these replicate instances of differentiation have resulted in predictable and repeatable patterns of genome divergence by natural selection. See page 738.

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A. J. Brooks et al.
A molecular mechanism for transmembrane signaling by the growth hormone receptor is elucidated.
Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1249783
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711 Border Control—A Membrane-Linked Interactome of Arabidopsis
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A membrane and signaling protein interaction network for gene discovery and hypothesis generation is identified in Arabidopsis.

717 Oxidation Products of Biogenic Emissions Contribute to Nucleation of Atmospheric Particles
F. Riccobono et al.
Experiments in the CLOUD chamber at CERN reproduce particle nucleation rates observed in the lower atmosphere.

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725 Electrically Switchable Chiral Light-Emitting Transistor
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A strong polymer formed by heating can be digested with strong acid to recover and recycle its bisaniline monomers.
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735 Marine Ice Sheet Collapse Potentially Under Way for the Thwaites Glacier Basin, West Antarctica
J. Joughin et al.
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>> News story p. 683

738 Stick Insect Genomes Reveal Natural Selection’s Role in Parallel Speciation
V. Sara-Carrasco et al.
Parallel speciation in insects shows both convergent and divergent selection after one generation.

742 NMR Spectroscopy of Native and in Vitro Tissues Implicates PolyADP Ribose in Biominalization
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750 Late Pleistocene Human Skeleton and mtDNA Link Paleoamericans and Modern Native Americans
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757 Sulfur Oxidation Genes in Diverse Deep-Sea Viruses
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760 Positive Feedback Within a Kinase Signaling Complex Functions as a Switch Mechanism for NF-κB Activation
H. Shinohara et al.
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