CONTENTS
21 AUGUST 2015 • VOLUME 349 • ISSUE 6250

SCIENCE

MEMBRANE VOLTAGE CHANGES CELL PROLIFERATION

789 & 873

IN DEPTH

774 BIG ARCHAEOLOGY FIGHTS BIG OIL TO PRESERVE ANCIENT LANDSCAPE
Researchers say fracking threatens hundreds of early Pueblo sites and endangers future excavations By M. Balter

NEWS

IN BRIEF

772 Roundup of the week’s news

IN DEPTH

775 WAR OVER BELGIAN POLAR STATION
Science at risk in ownership quarrel over Antarctic base By T. Rabesandratana

777 NEW RULES MAY END U.S. CHIMPANZEE RESEARCH
As of 14 September, no U.S. labs will be conducting invasive research on chimps By D. Grimm

778 AS ARCTIC DRILLING STARTS, SHELL-FUNDED RESEARCHERS KEEP WATCH
Critics uneasy at industry role in environmental monitoring By E. Kintisch

779 DATA CHECK: RETHINKING RED TAPE
Many administrative tasks are just part of the job By J. Mervis

FEATURE

780 THE SUPPLEMENT SLEUTH
Some dietary supplements are spiked with drugs. Pieter Cohen is out to expose the hazards By J. Couzin-Frankel

INSIGHTS

784 A MOST UNUSUAL (SUPER)PREDATOR
Effects of human hunting and fishing differ fundamentally from those of other predators By B. Worm

786 PROBING THE DARK SIDE
Fundamental questions about dark matter and dark energy are probed in laboratory experiments By J. Schmiedmayer and H. Abele

788 PLANT MICROBIOME BLUEPRINTS
A plant defense hormone shapes the root microbiome By C. H. Haney and F. M. Ausubel

789 LIPIDS LINK ION CHANNELS AND CANCER
Membrane voltage connects lipid organization to cell proliferation By A. Accardi

790 GLOBAL CONTROL OF HEPATITIS C VIRUS
A comprehensive strategy to control HCV infection must include a vaccine By A. L. Cox

792 ASSESSING THE BIOWEAPONS THREAT
Is there a foundation of agreement among experts about risk? By C. Boddie et al.

FOREST HEALTH

INTRODUCTION

800 Forest health in a changing world

NEWS

802 Battling a giant killer By G. Popkin
806 The new North By T. Appenzeller
810 Second act By E. Pennisi

REVIEWS

814 Forest health and global change S. Trumbore et al.
819 Boreal forest health and global change S. Gauthier et al.
823 Temperate forest health in an era of emerging megadisturbance C. I. Millar and N. L. Stephenson
827 Increasing human dominance of tropical forests S. L. Lewis et al.

832 Planted forest health: The need for a global strategy M. J. Wingfield et al.

ON THE COVER

Ecologist Roman Dial goes to great lengths to perform an ecological survey of mountain ash trees (Eucalyptus regnans) in an Australian forest.

Researchers making similar efforts globally help us understand and monitor the health of forests as they face increasing challenges in our changing world. See page 800.

Photo: Bill Hatcher/National Geographic Creative

SEE ALSO ▶ EDITORIAL P. 771 ▶ PERSPECTIVE P. 794 ▶ VIDEO ▶ SLIDESHOW

764 21 AUGUST 2015 • VOL 349 ISSUE 6250

768 Science Staff
886 New Products
887 Science Careers

Published by AAAS
Who’s the predator now?

Sculpting the root microbiome

RESEARCH ARTICLES

841 POPULATION GENETICS
Genomic evidence for the Pleistocene and recent population history of Native Americans M. Raghavan et al.

842 QUANTUM GASES
Observation of many-body localization of interacting fermions in a quasirandom optical lattice M. Schreiber et al.

REPORTS

846 QUANTUM SIMULATION
Localization-delocalization transition in the dynamics of dipolar-coupled nuclear spins G. A. Álvarez et al.

ASTROPHYSICS

849 Atom-interferometry constraints on dark energy P. Hamilton et al.

851 Exclusion of leptophilic dark matter models using XENON100 electronic recoil data The XENON Collaboration

854 ECOLOGICAL THEORY
A general consumer-resource population model K. D. Lafferty et al.

858 HUMAN IMPACTS
The unique ecology of human predators C. T. Darimont et al.

860 PLANT MICROBIOME
Salicylic acid modulates colonization of the root microbiome by specific bacterial taxa S. L. Lebeis et al.

864 PARASITIC PLANTS
Probing strigolactone receptors in Striga hermonthica with fluorescence Y. Tsuchiya et al.

868 RNA SPlicing
An alternative splicing event amplifies evolutionary differences between vertebrates S. Gueroussov et al.

BOOKS ET AL.

796 BIG BLUE LIVE
An interview with M. Sanjayan

797 INEQUALITY
By A. B. Atkinson, reviewed by M. Fleurbaey

799 DROUGHT THREATENS CALIFORNIA’S LEVEES
By P. Vahedifard et al.

799 TECHNICAL COMMENT ABSTRACTS

RESEARCH IN BRIEF

838 From Science and other journals

849 QUANTUM GASES
Observation of many-body localization of interacting fermions in a quasirandom optical lattice M. Schreiber et al.

854 ECOLOGICAL THEORY
A general consumer-resource population model K. D. Lafferty et al.

858 HUMAN IMPACTS
The unique ecology of human predators C. T. Darimont et al.

860 PLANT MICROBIOME
Salicylic acid modulates colonization of the root microbiome by specific bacterial taxa S. L. Lebeis et al.

864 PARASITIC PLANTS
Probing strigolactone receptors in Striga hermonthica with fluorescence Y. Tsuchiya et al.

868 RNA SPlicing
An alternative splicing event amplifies evolutionary differences between vertebrates S. Gueroussov et al.

873 SIGNAL TRANSDUCTION
Membrane potential modulates plasma membrane phospholipid dynamics and K-Ras signaling Y. Zhou et al.

877 TRANSCRIPTION
Allosteric transcriptional regulation via changes in the overall topology of the core promoter S. J. Philips et al.

882 TRANSCRIPTION
Structures of the RNA polymerase-σ54 reveal new and conserved regulatory strategies Y. Yang et al.

DEPARTMENTS

771 EDITORIAL
Forestry in the Anthropocene By Ariel E. Lugo

784 & 858

784 & 860

Published by AAAS

21 AUGUST 2015 • VOL 349 ISSUE 6250 765

sciencemag.org
Science 349 (6250), 771-894.