

439 This Week in *Science*

Editorial

441 A Serious Parlor Game

Letters

442 Systematics and Museums: T. D. NICHOLSON ■ Mutagenicity of Spy Dust: G. KLOPMAN, A. KALOS, M. FRIERSON, H. S. ROSENKRANZ ■ Graduate Students in Math: M. JOLLIE ■ Adult Decisions: A. H. SOLOWAY

News & Comment

443 Research Pinched in First Year of the Gramm-Rudman Law Era ■ NIH Faces \$236-Million Budget Cut in FY 1986

445 The Global Flight Over Plant Genes

447 A Plea from Academia

448 *Briefing*: Study Estimates Higher Risk from Ethylene Oxide Exposure ■ British Committee Rebuked Over Archaeology Congress ■ Internal Audit Scores Contracting by DOD Labs ■ Working Women Still Segregated and Underpaid ■ Comings and Goings

Research News

450 The Slow, Insidious Nature of the HTLV's

452 New Test Finds "Certified" Primes in Record Time

453 Polynesians' Litter Gives Clues to Islands' History

Articles

455 The Meteorological Satellite: Overview of 25 Years of Operation: W. L. SMITH, W. P. BISHOP, V. F. DVORAK, C. M. HAYDEN, J. H. MCELROY, F. R. MOSHER, V. J. OLIVER, J. F. PURDOM, D. Q. WARK

463 Terrestrial Observations from NOAA Operational Satellites: H. YATES, A. STRONG, D. MCGINNIS, JR., D. TARPLEY

Research Articles

470 The Intervening Sequence RNA of *Tetrahymena* Is an Enzyme: A. J. ZAUG and T. R. CECH

476 Irreversible Block of the Mycelial-to-Yeast Phase Transition of *Histoplasma capsulatum*: G. MEDOFF, M. SACCO, B. MARESCA, D. SCHLESSINGER, A. PAINTER, G. S. KOBAYASHI, L. CARRATU

■ SCIENCE is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class postage (publication No. 484460) paid at Washington, DC, and at an additional entry. Now combined with *The Scientific Monthly* © Copyright © 1986 by the American Association for the Advancement of Science. Domestic individual membership and subscription (51 issues): \$60. Domestic institutional subscription (51 issues): \$98. Foreign postage extra: Canada \$24, other (surface mail) \$27, air-surface via Amsterdam \$65. First class, airmail, school-year, and student rates on request. Single copies \$2.50 (\$3 by mail); back issues \$4 (\$4.50 by mail); Biotechnology issue, \$5.50 (\$6 by mail); classroom rates on request. Change of address: allow 6 weeks, giving old and new addresses and seven-digit account number. Authorization to photocopy material for internal or personal use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$1 per copy plus \$0.10 per page is paid directly to CCC, 21 Congress Street, Salem, Massachusetts 01970. The identification code for *Science* is 0036-8075/83 \$1 + .10. Postmaster: Send Form 3579 to *Science*, 1333 H Street, NW, Washington, DC 20005. *Science* is indexed in the *Reader's Guide to Periodical Literature* and in several specialized indexes.

■ The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to foster scientific freedom and responsibility, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.



COVER East Amatuli Island, one of the Barren Islands in the northern part of the Gulf of Alaska, is home to several hundred thousand fork-tailed storm-petrels that return to the island only at night. Regional water quality can be monitored by collecting storm-petrel regurgitate and analyzing it for the presence or absence of fossil fuel hydrocarbons. See page 373. [P. Dee Boersma, Institute for Environmental Studies, University of Washington, Seattle 98195]

Reports

- 480 What Perturbs the γ and δ Rings of Uranus?: R. G. FRENCH, J. A. KANGAS, J. L. ELLIOT
- 483 Model for the Intrusion of Batholiths Associated with the Eruption of Large-Volume Ash-Flow Tuffs: J. A. WHITNEY AND J. C. STORMER, JR.
- 486 Lasing Droplets: Highlighting the Liquid-Air Interface by Laser Emission: S.-X. QIAN, J. B. SNOW, H.-M. TZENG, R. K. CHANG
- 488 Indirect Observation by ^{13}C NMR Spectroscopy of a Novel CO_2 Fixation Pathway in Methanogens: J. N. S. EVANS, C. J. TOLMAN, M. F. ROBERTS
- 491 Genetic Control of Melatonin Synthesis in the Pineal Gland of the Mouse: S. EBIHARA, T. MARKS, D. J. HUDSON, M. MENAKER
- 493 Bacterial Grazing by Planktonic Lake Algae: D. F. BIRD AND J. KALFF
- 495 Diet-Induced Head Allometry Among Foliage-Chewing Insects and Its Importance for Graminivores: E. A. BERNAYS
- 497 Presence of Nonoxidative Ethanol Metabolism in Human Organs Commonly Damaged by Ethanol Abuse: E. A. LAPOSATA AND L. G. LANGE
- 499 Optical Image Quality and the Cone Mosaic: A. W. SNYDER, T. R. J. BOSSOMAIER, A. HUGHES

Technical Comments

- 501 The Sympathochromaffin System and the Pituitary-Adrenocortical Response to Hypoglycemia: P. E. CRYER AND J. E. GERICH; M. F. DALLMAN AND M. A. GREER; T. D. REISNE, E. MEZEY, M. PALKOVITS, M. J. BROWNSTEIN, J. AXELROD

AAAS Meetings

- 503 Philadelphia: Where It All Began

Book Reviews

- 504 *Counsels of War*, reviewed by G. A. GREB ■ *Science versus Practice*, C. MEINEL ■ *Black Scientists, White Society, and Colorless Science*, C. B. MARRETT ■ *Prehistory of the Eastern Arctic*, W. W. Fitzhugh ■ *Books Received*

Board of Directors

David A. Hamburg
*Retiring President,
Chairman*

Gerard Piel
President

Lawrence Bogorad
President-elect

Robert McC. Adams
Robert W. Berliner
Mildred Dresselhaus
Donald N. Langenberg
Dorothy Nelkin
John E. Sawyer
Shelia E. Widnall
Linda S. Wilson
William T. Golden
Treasurer
William D. Carey
Executive Officer

Editorial Board

David Baltimore
William F. Brinkman
Ansley J. Coale
Joseph L. Goldstein
James D. Idol, Jr.
Leon Knopoff
Seymour Lipset
Walter Massey
Oliver E. Nelson
Allen Newell
Ruth Patrick
David V. Ragone
Vera C. Rubin
Howard E. Simmons
Solomon H. Snyder
Robert M. Solow

Board of Reviewing Editors

Qais Al-Awqati
James P. Allison
Luis W. Alvarez
Don L. Anderson
Kenneth J. Arrow
C. Paul Bianchi
Elizabeth H. Blackburn
Floyd E. Bloom
Charles R. Cantor
James H. Clark
Bruce F. Eldridge
Stanley Falkow
Douglas J. Futuyma

Theodore H. Geballe
Robert B. Goldberg
Stephen P. Goff
Roger I. M. Glass
Patricia S. Goldman-Rakic
Richard M. Held
Gloria Heppner
Eric F. Johnson
Konrad B. Krauskopf
Joseph B. Martin
John C. McGiff
Alton Meister
Mortimer Mishkin
John S. Pearce
Yeshayau Pocker
Frederic M. Richards
James E. Rothman

Ronald H. Schwartz
Otto T. Solbrig
Robert T. N. Tjian
Virginia Trimble
Geerat J. Vermeij
Martin G. Weigert
George M. Whitesides
William B. Wood
Harriet Zuckerman

Science

231 (4737)

Science **231** (4737), 439-507.

ARTICLE TOOLS

<http://science.sciencemag.org/content/231/4737.citation>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.