

# SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication  
Volume 138, No. 8, August 25, 1990

E. G. Sherburne Jr.	Publisher
Patrick Young	Editor
Laurie Jackson	Managing Editor
Janice Rickerich	Production/Design Director
Bruce Bower	Behavioral Sciences
Ivan Amato	Chemistry/ Materials Science
Richard Monastersky	Earth Sciences
Janet Raloff	Environment/Policy
Ron Cowen	General Science
Kathy A. Fackelmann, Rick Weiss	Life Sciences/ Biomedicine
Ivars Peterson	Mathematics/Physics
Jonathan Eberhart	Space Sciences
Jennifer L. Miller	Editorial Assistant
William Stolzenburg, Peter L. Weiss	Science Writer Interns
Liz Marshall	Books/Resource Manager
Donald R. Harless	Advertising/Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$34.50 for 1 year or \$58.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036. Second-class postage paid at Washington, D.C., and additional mailing office. **POSTMASTER:** Send address changes to SCIENCE NEWS, 231 West Center Street, Marion, OH 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided.

Copyright © 1990 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A.

**Editorial and Business Offices:**  
1719 N St., N.W., Washington, D.C. 20036  
(202-785-2255)  
Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

**Subscription Department:**  
231 West Center St., Marion, OH 43305  
For new subscriptions only, call 1-800-247-2160.

## This Week

- 116 Hormone-Boosted Milk Passes FDA Review
- 116 Solutions to crystal-growth mysteries
- 117 Magellan: Sharp images, startling silences
- 117 Schizophrenia, depression share brain clue
- 118 Aerosols: Critical question for climate
- 118 Accelerated rise in CO<sub>2</sub>
- 118 Quantum swirls in superfluid helium
- 119 Elements employed to trace smuggled tusks
- 119 Award-winning links twist math and physics

## Research Notes

- 124 Behavior
- 126 Earth Sciences
- 126 Nutrition

## Articles

### 120 When Life Got Hard

Cover: A remarkable variety of sea animals wearing rigid skeletons sprang upon the scene during the Cambrian period, beginning some 570 million years ago. No one knows for sure why the shelly coats evolved so rapidly. But recent fossil discoveries offer clues to what — or perhaps who — might have prodded the evolutionary sprint toward skeletons. This diorama, depicting a slice of seafloor life roughly midway through the Cambrian, highlights a trilobite (left) — the “cockroach” of the ancient seas — and its arthropod cousins, the shrimp-like *Canadaspis*. (Photo: Smithsonian Institution)



### 122 Gleaning Meaning From Ailing Mice

## Departments

- 114 Science on the Air
- 114 Books
- 115 Letters

**Science Service** Institution for the public understanding of science founded 1921; a nonprofit corporation.  
**Board of Trustees** — *Chairman*, Glenn T. Seaborg; *Vice Chairman*, Gerald F. Tape; *Treasurer*, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; David A. Goslin; J. David Hann; Milton Harris; Leon M. Lederman; Shirley M. Malcom; Elena O. Nightingale; Ben Patrusky; H. Guyford Stever; Deborah P. Wolfe.  
**Honorary Trustees** — Edward Bliss Jr.; Bowen C. Dees; O.W. Riegel; John Troan.  
**President:** E. G. Sherburne Jr.; **Business Manager:** Donald R. Harless.

## Letters

### Assessing asbestos risks

I am uneasy about the article “More jobs linked to asbestos hazards” (SN: 6/16/90, p.373). In the first place, no distinction was made between the two mineralogical forms of asbestos, amphibole and serpentine. Amphibole asbestos is the primary cause of asbestosis and mesothelioma. However, in the United States it has long been replaced by serpentine asbestos, which, being difficult to ingest into lung passages, presents a much lower hazard.

It is particularly important to include such details in surveys of firefighters (who may have been involved with older buildings containing the amphibole variety) or machinists exposed to a workplace environment of 50 to 70 years past. Conclusions reached about exposure to an amphibole asbestos environment do not apply to the modern environment, or at least are subject to stringent qualification.

There is another problem of surveys of older workers, in that the habit of smoking will

exacerbate the effects of even serpentine asbestos. If the surveys do not control for whether subjects smoked or not, potentially misleading conclusions about asbestos hazards will be inescapable.

Michael J. Dunn  
Auburn, Wash.

### But a detail?

I agree with Edmund Storms' assertion (Letters, SN: 6/9/90, p.355) that scientists should work toward explaining the experiments supporting the existence of cold fusion, rather than searching for a facile method of dismissal. However, I cannot accept his description of Pons and Fleischmann's use of the media as “. . . but a detail in this age of rapid communications, especially in view of the potential importance of this discovery.”

Had Pons and Fleischmann presented their research through established channels, the current level of division and bickering that afflicts the community investigating the existence of cold fusion could have been avoided. Regardless of how viable and useful cold fusion

might prove to be, their use of the media was inappropriate. What was gained by informing the public of this research so prematurely? Were any lives saved?

If we use the emotionally charged arena of the news media to present and debate our work prior to vigorous peer review, we take a step away from our pursuit of objectivity and move toward a mode of presentation that catches the attention of those not versed in our work.

In doing so, Pons and Fleischmann decreased the credibility of all scientists in the eyes of the public.

John R. Saylor  
Research Fellow  
Dept. of Mechanical Engineering  
Yale University  
New Haven, Conn.

## CORRECTION

In “Insect Inscriptions” (SN: 6/16/90, p.376), the butterfly depicted with an “89” on its wing is not a hairstreak of the family Lycaenidae but a species of the genus *Diathria*, family *Nymphalidae*.

AUGUST 25, 1990

115