

THIS WEEK

Iridium anomaly and mass extinction 340
Spiral sunspot 341
Botulism treatment for crossed eyes 341
U.S. science education criticized 341
Traffic-radar systems show problems 342
Chemical sleep agent identified 342
Shuttle-DOD link raises money questions 343
More chemical warfare evidence 343

RESEARCH NOTES

Technology 346
Biomedicine 346

ARTICLES

The workplace: Harmful to hearing? 347

DEPARTMENTS

Letters 339
Science on the Air 339

COVER: Drill operator in a New Mexico surface mine uses earmuffs to protect her ears from noise levels in excess of 100 dB. Millions of American workers are exposed to potentially hazardous levels of industrial noise. While OSHA has stepped up protection this year, problems remain. See story p. 347. (Photo courtesy of Mine Safety and Health Administration)

PUBLISHER: **E. G. Sherburne Jr.**

EDITOR: **Joel Greenberg**

SENIOR EDITOR/PHYSICAL SCIENCES:
Dietrick E. Thomsen

ASSISTANT EDITOR: **Judy Klein**

BEHAVIORAL SCIENCES: **Wray Herbert**

BIOMEDICINE: **Joan Arehart-Treichel**

CHEMISTRY: **Linda Garmon**

EARTH SCIENCES: **Cheryl Simon**

LIFE SCIENCES: **Julie Ann Miller**

POLICY/TECHNOLOGY:

Janet Raloff, Ivars Peterson

SPACE SCIENCES: **Jonathan Eberhart**

CONTRIBUTING EDITORS: **Lynn Arthur Steen (mathematics), Kendrick Frazier, John H. Douglas, Michael A. Guillen**

SCIENCE WRITER INTERN: **Laura Tangley**

ART DIRECTOR: **Ileana Mendez**

ASSISTANT TO THE EDITOR: **Betsy Gordon**

BOOKS: **Jane M. Livermore**

BUSINESS MANAGER: **Donald R. Harless**

ADVERTISING: **Scherago Associates, 1515 Broadway, New York, N.Y. 10036, Fred Dieffenbach, Sales Director**

Copyright © 1982 by Science Service, Inc., 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Editorial and Business Offices
1719 N Street, N.W.
Washington, D.C. 20036

Subscription Department
231 West Center Street
Marion, Ohio 43302

Subscription rate: 1 yr., \$27.50; 2 yrs., \$47.50; 3 yrs., \$67.00. (Foreign postage \$5.00 additional per year.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code. For new subscriptions only Call (1) 800-247-2160. Printed in U.S.A. Second class postage paid at Washington, D.C. Title registered as trademark U.S. and Canadian Patent Offices. Published every Saturday by SCIENCE SERVICE, Inc. 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255)
ISSN 0036-8423

MAY 22, 1982

LETTERS

Exploring all options

The effort by the Cayman Turtle Farm (CTF) to allow its products entry into U.S. markets (SN: 4/17/82, p. 265) is intriguing. What they are doing commercially, on Grand Cayman, is similar in one respect to the husbanding of endangered species activities being carried out at the Patuxent Wildlife Research Center (SN: 4/17/82, p. 266). Both processes are increasing the overall numbers of several declining species. As was to be expected, some don't like what either group is doing.

Arguments against letting CTF market their products in the United States pose the risk that this might increase exploitation of sea turtle species, in general — and perhaps thus complicate other sea turtle conservation efforts.

Arguments against husbanding scarce species at Patuxent cite the risk that goes with removing "seedstock" from the few remaining members of the endangered life still intact in their own environment and that inbreeding problems will defeat such efforts. Also, that such efforts will be useless, unless more attention — and funding — is devoted to protecting the diminishing habitats into which these rare progeny are to be loosed.

While there is logic behind some of these arguments, they do not offset a more important consideration — that of keeping alive what we can, until we can definitely fix on ways to ensure their future existence in their wild world.

While we are busy razing the Amazon Basin, and generally spoiling the habitats of species around the world, what other choices do we have than to explore ALL options that are open to us? Those that at least perpetuate the species — when and wherever we can make it happen — are not just successes. They are teachings that will help us ensure the diversity of lifeforms that are at the heart of environmental stability — and our survival.

The commercial venture on Grand Cayman and the research efforts at Patuxent should be recognized as being very fruitful beginnings. If better ones follow they should at least equal their successes — that of multiplying the species involved.

John Hoke
Bethesda, Md.

Security vs. regulation

The article "Controlling Technology Exports: Security vs. Knowledge" (SN: 3/20/82, p. 204) addresses a serious problem. The "...web of regulations ..." is an obstacle reducing the ability of the American system to compete.

The U.S. positions in defense and world commerce, as well as technical progress, are being strangled by excessive regulation. Every effort to remove uncertainty or risk from the problems at hand adds another layer of paper obstacles to finding the answers (or at least workable alternatives for testing). The volume of paper generated in the process is furthermore creating problems in funding as well as solid waste disposal.

Several responses may be generated by a single presentation and each of these generates its own series of responses.

Two areas seem to offer hope for corrective action. These are self discipline among the news media and a concerted effort to reduce regulatory language to a level of enforceable and practical guidelines. The guidelines should apply to business, technical development and information exchange, the news media and individuals.

The objectives of "productive harmony" and "beneficial use" as prescribed by the National Environmental Policy Act should guide the effort. The alternative avalanche of restrictive language and effort that has occurred instead is wasteful, costly and counter-productive.

There will be risk in no action and too much caution but the continuation of the existing paper-producing trend will bury us all.

E. O. Bracken
Juneau, Alaska

A great job

A great job on the stromatolites from Antarctica (SN: 4/24/82, p. 282). Please note, however, that the captions for the two photos on p. 286 were reversed. Might I add that some good color photographs of the Shark Bay material can be found in the 10/80 issue of Natural History for comparison.

Write on!

Jamie Nook
Boston, Mass.

Correction: In "Portrait of a Strange Winter" (SN: 5/1/82, p. 298), two of the maps on p. 299 were reversed; the map labeled "predicted temperature" should read "predicted precipitation" and vice versa.

SCIENCE ON THE AIR

SCIENCE NEWS prints the latest written word of scientific developments and noteworthy news. We've set this space aside to inform our readers of programs of scientific interest that are scheduled on television and radio. Check your local listings for exact times.

• **June 23 (PBS) "Nisei Legacy"** examines the problem Japanese-Americans have with heart disease — a disease that is uncommon in Japan.

• **June 25 (PBS) "The Heartbreak Turtle"** focuses on the plight of the Kemp's Ridley sea turtle and the international effort to save it from extinction.

Series

• **"Universe"** (CBS) This weekly science news magazine returns **June 8** as a 13-edition summer series. Upcoming broadcasts will include reports on a journey to the

bottom of the Pacific and the consequences of destruction of the world's rain forests.

• **"NOVA"** (PBS): **June 6 "Salmon on the Run"** A look at the power and determination of the salmon and the effects of business and technology on its future; **June 13 "The Hunt for the Legion Killer"** traces the search for the microbe that causes legionnaire's disease; **June 20 "A Field Guide to Roger Tory Peterson"** profiles the master bird watcher; **June 27 "Locusts: War Without End"** looks at attempts to get rid of an age-old enemy.

339