

A Science Service Publication Volume 126, No. 21, November 24, 1984

E. G. Sherburne Jr. Publisher
Joel Greenberg Editor

Joel Greenberg Editor
Dietrick E. Thomsen Senior Editor/
Physical Sciences
Laurie Jackson Phillips
Wendy McCarren Production/Design
Director

Bruce Bower Deborah Franklin, Joanne Silberner

Stefi Weisburd
Julie Ann Miller
Janet Raloff,
Ivars Peterson
Jonathan Eberhart
Susan Welch

tet Raloff, rs Peterson athan Eberhart Space Sciences Assistant to the Editor Science Writer Interns

Behavioral Sciences

Biomedicine

Earth Sciences

Life Sciences

Steven I. Benowitz, Christine Mlot

Jane M. Livermore Books
Donald R. Harless Business Manager

Scherago Associates Advertising Fred Dieffenbach, Sales Director 1515 Broadway, New York, N.Y. 10036

Copyright © 1984 by Science Service, Inc., Editorial and Business Offices, 1719 N St., N.W., Washington, D. C. 20036. Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Subscription Department 231 West Center Street, Marion. Ohio 43305

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

## **This Week**

324 Modeling the Movement of Magma
325 3D graphics 'peel apart' human body
325 Baby Fae dies
326 Satellite salvage: High-tech handwork
326 Conducting a new polymer into batteries
327 Power to the whale's tail
327 Kosher pig? Hold the bacon

Building a better rabies vaccine

## **Research Notes**

328 Earth Sciences 329 Biomedicine 329 Environment

## **Articles**

327

The Unpacking of a KnapsackIn Pursuit of the Hit-and-Run Starfish

Cover: A large crown-of-thorns starfish (orange shape near center) has colonized Hopkins Reef, part of the Great Barrier Reef of Australia's east coast, and will soon devour huge amounts of coral. Crown-of-thorns was once thought to represent a grave new threat to the Great Barrier Reef, but scientists now believe that it has been a longtime predator of coral and that reefs can recover after an attack. They still do not know from where the starfish comes or what role it plays in reef ecology. (Photo: Peter Moran)



## **Departments**

322 Science on the Air

322 Books 323 Letters

Science Service Institution for the public understanding of science founded 1921; a nonprofit corporation. Board of Trustees—*President, Glenn T. Seaborg; Vice President, Gerald F. Tape; Treasurer, Willis Harlow Shapley; Secretary, Julius Duscha; Joseph W. Berg Jr.; Edward Bliss Jr.; Bowen C. Dees; David A. Goslin; Milton Harris; Hilleary F. Hoskinson; Elizabeth F. Neufeld; O. W. Riegel; H. Guyford Stever; John Troan; Deborah P. Wolfe.* 

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless.

# Letters

## Born to be wild?

In reading "The Mating Game" (SN: 10/13/84, p. 232), I wonder if other readers caught the undertone of desperation, and perhaps of ultimate futility, in trying to keep endangered species alive in zoos. The attempt should be strongly supported, since it is better than letting these species, with all their rich store of genetic information, die off. But at best it is a delaying action.

As with analogous attempts to preserve our original wild grain plants, the only long-term solution is natural habitat. The natural stresses and nurture of wild places allowed the evolution of these species in the first place; only the preservation of wilderness habitat will keep them alive over the long pull. Some could be misled into thinking that the zoo programs described in the article are all that we need.

G.E. Schindler Jr. New Providence, N.J. We suggest a third section to "The Mating Game" in which you reveal the liaison between zoos, game ranches and medical research. The first article only hints at "propagation...for the supply of domestic, laboratory and game animals."

Captive breeding may produce an animal that looks like a tiger but whose behavioral patterns are very different. To return it to the wild is cruel indeed. And the "guaranteed kill" of exotic and rare animals on game ranches that accept the overflow of zoo-bred animals is a great sickness.

A direct analogy to the modern zoo is the street-caging of insane people in Elizabethan times for the entertainment of the public. Such exploitation of animals cannot be condoned by a civilized society.

Alice Herrington President, Friends of Animals, Inc. Neptune, N.J. Much of the very interesting work going on in zoos is completely unheralded at this point. Although academic scientists are aware of the work of individual researchers in zoos in their own areas of expertise, there is little awareness of the potentially valuable role zoos can play in basic research, evolutionary biology and reproductive physiology—in addition to the very necessary work on conservation biology that is being aggressively tackled by the zoo community.

Oliver Ryder Zoological Society of San Diego San Diego, Calif.

Address communications to Editor, Science News, 1719 N Street, N.W. Washington, D. C. 20036 Please limit letters to 250 words.

NOVEMBER 24, 1984 323