

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 144, No. 22, November 27, 1993

Alfred Scott McLaren Publisher
Patrick Young Editor
Blair Burns Potter Managing Editor
Janice Rickerich Production/Design Director
Greg W. Pearson Associate Editor
Janet Raloff Senior Editor
Environment/Policy
Ron Cowen Astronomy
Bruce Bower Behavioral Sciences
Richard Lipkin Chemistry/
Materials Science
Richard Monastersky Earth Sciences
Tina Adler General Science
Kathy A. Fackelmann, Elizabeth Pennisi Life Sciences/
Biomedicine
Ivars Peterson Mathematics/Physics
Larry Norland Editorial Assistant
Gabrielle Strobel Science Writer Intern
Cait Anthony 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 \$39.50 for 1 year or \$68.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, DC 20036. Second-class postage paid at Washington, DC, and additional mailing office. POSTMASTER: Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, OH 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided.

Copyright © 1993 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, DC 20036
(202-785-2255)
Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Subscription Department:
P.O. Box 1925, Marion, OH 43305
For new subscriptions only, call 1-800-247-2160.
For customer service, call 1-800-347-6969.

Letters

Verdict on biodiversity: Essential

After reading Donald T. Torell's diatribe about biodiversity ("Biodiversity: Desideratum or humbug?" SN: 9/11/93, p.163), I could only shake my head in disgust at the low level of critical thinking skills that we have engendered in this country. I will leave it to others to educate him about species such as the dusky sparrow, the ivory-billed woodpecker, and the passenger pigeon, which have become globally extinct within the past five, 25, and 100 years.

I do, however, want to point out that biodiversity is much more than the number of species on Earth. The strains of species that have evolved in isolated populations around the world are the bigger part of biodiversity.

This immense storehouse of genetic material has an unimaginable array of uses, from food and medicines to materials and just plain scientific knowledge. Genetic attributes of the wild cousins of our crop species have been

This Week

- 356 New Gene Ties Cancer, Cell Cycle
- 356 Dioxin linked to reproductive disorder
- 357 Embryo uses chemistry to tell genes apart
- 357 New nanotubes self-assemble on command
- 358 Capturing the motion of magnetic vortices
- 358 Agent from the sea has antitumor promise
- 358 Ancient Maya trade: Tracing salty swaps
- 359 Minor climate change can unravel a forest
- 359 Evidence of disks in middleweight stars

Research Notes

- 367 Neuroscience

Articles

- 360 Hormone of Monogamy
Cover: The cuddly creatures on the cover are prairie voles. Biologists know that male and female prairie voles form monogamous relationships, usually for life. New research suggests a brain hormone may encourage male prairie voles to remain true to their mates and share the task of bringing up pups (p.360). For the human side of the love and sex story, see p.362. (Photo: Lowell L. Getz and Lisa Davis)

- 362 Romantic Reverie

Departments

- 354 Books
- 355 Letters

Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

Board of Trustees — Chairman, Glenn T. Seaborg; Vice Chairman, Gerald F. Tape; Secretary, David A. Goslin; Treasurer, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; J. David Hann; Dudley Herschbach; Shirley M. Malcom; Elena O. Nightingale; Ben Patrusky; Peter H. Raven; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe. Honorary Trustees — Edward Bliss Jr.; Bowen C. Dees; O.W. Riegel; John Troan.

President: Alfred Scott McLaren; Vice President and Business Manager: Donald R. Harless.

incorporated into crop varieties to avert worldwide crop failure.

We will never discover many of these uses without becoming better at conserving these resources in the only way possible — in their many, diverse habitats.

Ron Raunika
Salt Lake City, Utah

Bizarre though it may have been, it was a disservice to your readers to leave unanswered Torell's implied assertion that no species has become extinct "in the last five years, 25 years, or 100 years" from habitat removal or any other cause.

For the record, then, here are the extinctions in a single class, Mammalia, in a single country, Australia, since 1893:

- The short-tailed hopping mouse, *Notomys amplus*, not seen since 1896;
- The white-footed rabbit-rat, *Conilurus albipes*, probably survived into the early 20th century;
- The long-tailed hopping mouse, *Notomys longicaudatus*, not seen since 1902;

- The pig-footed bandicoot, *Chaeropus ecaudatus*, not seen since 1907;
- The desert bandicoot, *Perameles eremiana*, not seen since 1931;
- The desert rat-kangaroo, *Caloprymnus campestris*, not seen since 1935;
- The Tasmanian wolf, *Thylacinus cynocephalus*, not seen since 1936;
- The crescent nailtail wallaby, *Onychogalea lunata*, not seen since about 1960; and
- The Toolache wallaby, *Macropus greyi*, not seen since 1972.

Habitat destruction unquestionably played a role in the extirpation of some of these species and may well have been involved in the many cases where the cause of extinction (in the years before sophisticated ecological surveys) is unknown. It is difficult to prove a negative and easy to overlook an absence. If extended to the whole animal kingdom and the whole world, the above list would rival the roll of names on the Vietnam War Memorial.

And that's just the animals.

Andrew Stiller
Philadelphia, Pa.



NOVEMBER 27, 1993

355