

A Science Service Publication Volume 125, No. 14, April 7, 1984

E.G. Sherburne Jr. Joel Greenberg Dietrick E. Thomsen

Publisher Editor Senior Editor/ Physical Sciences Managing Editor

Joanne Silberner Laurie Jackson Phillips

Production/Design
Director
Behavioral Sciences

Bruce Bower Deborah Franklin Linda Garmon Cheryl Simon Julie Ann Miller Janet Raloff, Ivars Peterson

Biomedicine Chemistry Earth Sciences Life Sciences Policy/Technology

Wendy McCarren Stefi Weisburd Jane M. Livermore

Jonathan Eberhart

Space Sciences Assistant to the Editor Science Writer Intern Books

Donald R. Harless
Scherage Associate

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 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

This Week

212 Superconductivity: Betwixt and Between 212 Rare earth magnets attract attention 213 Reducing the risks at university reactors 213 Abundant Ir marks a third boundary 214 Volcanic ash takes stressful toll 215 European and U.S. forests in trouble 215 Sniffing out a new flu vaccine 219 Attack of the worm-eating mushrooms

Articles

216 Food for Mind and Mood

220 Swallow Transsonically and Stay Fat

Cover: Graphics based on a supercomputer calculation make a false color image of how infalling matter distributes itself in a fat accretion disk around a black hole. The black hole would be in the center where the two broad angles point. (Graphics courtesy John F. Hawley and Larry I. Smarr)



Departments

211 Letters 222 Books

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

Migraines and Marriage

The medical researchers may be correct in their surmise that some unhappy marriages cause migraine attacks ("Marital woes: Migraine or yours?" SN:3/3/84, p. 138), but a more plausible connection has been suggested by psychiatrist William J. Lederer (author of *The Ugly American* and other books). In his book *Marital Choices* (Norton, 1981) Lederer reports findings by himself and other researchers showing that some 50 to 90 percent of marital difficulties are caused or greatly exacerbated by the faulty nutritional practices of one or both partners. Lederer includes migraines in a cluster of marriage-destructive symptoms he refers to as the "fatigue-irritability-irrational behavior syndrome."...

Bernard Rimland, Ph.D. Director, Institute for Child Behavior Research San Diego, Calif.

Humanizing elephant seals

An otherwise informative article on the northern elephant seal ("Sex, Violence and

Plenty of Rest," SN:2/25/84, p. 120) was marred by numerous anthropomorphic descriptions of seal behavior. Equating animal behavior with that of humans can only perpetuate the misconceptions commonly found in Disney caricatures and in well-meaning, but inaccurate nature movies and books. It is especially disturbing to read that even the researchers studying the elephant seal indulge in anthropomorphism. There is no purpose served in comparing the rate of "rape" between seals and humans, or in the use of terms such as "the Okie Bar Effect."

Our appreciation and understanding of ... animals is enhanced by objective scientific reporting, not anthropomorphism.

David L. Peterson Riverside, Calif.

...and killing harp seals

The opponents of the baby harp seal hunt get my goat ("Harp seal pups are hunted again," SN:3/17/84, p. 164). These bleeding heart liberals also buy calves' liver, spring lamb, tender young ducklings and tender young chickens in their supermarkets as well as adorning themselves in calfskin belts and shoes. What rot. If the killing is done humanely there is no differ-

ence between harvesting baby harp seals and baby anything else. Lambs are cute too, you know. The real concerns are to enforce humane killing techniques and proper quotas, no more and no less.

John P. Wren Shippensburg, Pa.

Dating eruptions

Using the bristlecone pine's annual rings to date "climatically affective eruptions" is not as reliable as LaMarche and Hirschboeck would have us believe ("Frost rings used to date eruptions," SN: 1/28/84, p. 54). This follows from the fact that frost rings do not attest the exceptionally large, disruptive eruption in A.D. 536 (see NATURE, 1/26/84, p. 344) and, conversely, frost rings occur which are not related to volcanism.

Since acid from the A.D. 536 eruption is evident in the Greenland ice cores, perhaps it is too soon to discount the ice core-derived date of circa 1390 B.C. for the eruption of Santorini in favor of circa 1626 B.C. inferred from the frost ring record.

C. Leory Ellenberger St. Louis. MO

APRIL 7, 1984

211