

# SCIENCE NEWS®

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## This Week

- 244 Infections May Underlie Cerebral Palsy  
*Nathan Seppa*
- 244 Botanical 'Velcro' entraps hummingbirds  
*Janet Raloff*
- 245 Who's been eating all those sea otters?  
*Susan Milius*
- 245 Marginal groups thrive on the Internet  
*Bruce Bower*
- 246 Antarctic ozone hole reaches record size  
*Richard Monastersky*
- 246 Medical Nobel prize says yes to NO  
*John Travis*
- 247 Physics Nobel spotlights quantum effect  
*Ivars Peterson*
- 247 Chemistry computations earn Nobel prize  
*Corinna Wu*

## Articles

- 248 Does Light Have a Dark Side?  
Nighttime illumination might elevate cancer risk  
*Janet Raloff*
- 252 Dogs and Cats in Their Dotage  
Do aged pets get their own type of Alzheimer's, and will a new drug help them?  
*Susan Milius*

## Letters

### Close calls

American marketers discovered the small-world phenomenon ("Close Connections," SN: 8/22/98, p. 124) in the late 1970s, when the virtual oil shortage triggered "shortages" of all manner of goods. When Johnny Carson joked one evening that he had heard there was going to be a shortage of toilet tissue, store shelves all over the country were stripped bare the next day. A few years later, the Coleco Co. used well-publicized "shortages" of its Cabbage Patch dolls in strategically located stores to drive up sales and prices very quickly. Today, the manufacturers of Beanie Babies are using the most sophisticated technique of making random but secret numbers of each of its toys, creating a collector's market for the rarer ones, but forcing buyers to depend on information networks to discover which ones have potential value.

All of these phenomena depend on relatively few people communicating information to their own circle of friends and relatives, both

near and far, but these contacts rapidly engulf the entire nation. And don't forget pyramid schemes and multilevel marketing. Heaven help us if researchers succeed in formalizing this process. With the Internet out there, the whole world is vulnerable!

*Martha Claudio  
Chica, Calif.*

I read the article "Close Connections" the day after learning about another small world. A mathematician's "Erdős number" is his distance from the legendary Paul Erdős as measured by coauthorship. The 485 mathematicians who coauthored papers with Erdős have an Erdős number of 1. The rest have an Erdős number one greater than the lowest Erdős number of any mathematician with whom they have coauthored a paper. Almost every practicing mathematician has a finite Erdős number. Erdős numbers are tracked on the Erdős Number Project's Web site (<http://www.acs.oakland.edu/~grossman/erdoshp.html>).

*Rollins Turner  
Tampa, Fla.*

**Cover:** Though bright nighttime illumination can extend our daily activities, it can also tamper with the body's production of a key brain hormone. Studies now hint that perturbing this hormone's production long term may render the body vulnerable to cancer.

**Page 248** (Photo: © Frank Grant/International Stock)



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You can read more about Erdős numbers in a column archived on the Science News Web site ([www.sciencenews.org/sn\\_arch/6\\_15\\_96/mathland.htm](http://www.sciencenews.org/sn_arch/6_15_96/mathland.htm)).

—I. Peterson

Some readers of "Close Connections" might be interested in a Web site ([www.sixdegrees.com](http://www.sixdegrees.com)) that attempts to fulfill the six-degree connection by registering people and the people they have met and their hobbies. It is hoped that through your degrees of contacts, you can come into contact with someone who meets whatever criteria you are looking for. This, of course, means that you have to get many people registered.

*David H. Kaplan  
East Granby, Conn.*

### The trouble with magazines

There is only one problem with the beautiful heptoroid pictured in "Twists through space" (SN: 8/29/98, p. 143). I couldn't touch it and feel its curves and holes.

*Elizabeth Oscanyan  
Philomont, Va.*