

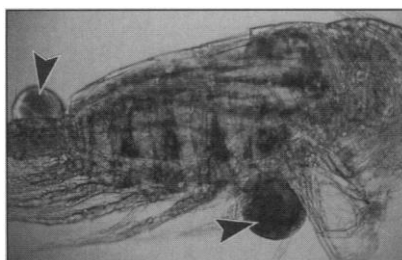
RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Tumors in Lake Michigan

Do crabs get cancer? That may seem a tautologous question to horoscope readers. But the government says other crustaceans—tiny ones living in Lake Michigan—appear to be afflicted with malignant tumors for reasons unknown.

Scientists at the National Oceanic and Atmospheric Administration's (NOAA's) Great Lakes Environmental Research Laboratory in Ann Arbor, Michigan, reported at a meeting last week of the International Association for Great Lakes Research in Cleveland that tumors have shown up in several species of copepods and Cladocera, or water fleas. Only a small number have been analyzed so far, from



Copepod (1.7 mm long) with tumors.

the southern basin of Lake Michigan. Cancers are rare in crustaceans, and tumors have been reported in zooplankton only once before—in the Baltic Sea in 1994—says Henry Vanderploeg, a research ecologist at the NOAA lab. But he says this is the first time such growths have been documented scientifically. So far, scientists have "not the slightest idea" as to the cause, Vanderploeg says.

But NOAA scientists say

there's a great deal more going into Lake Michigan than what's on the list of 139 toxic substances that must be monitored by law. Most of these are persistent toxicants, says NOAA toxicologist Peter Landrum: "We've not really paid attention to things that are present in high quantities but not necessarily as persistent." Prime suspects these days, he says, are endocrine disrupters, a huge source of which are nonphenols from laundry detergents, which have been implicated in estrogenlike activity.

But more research is needed. Vanderploeg says, "We're going to start looking at archived samples going back to the early '80s and nail down

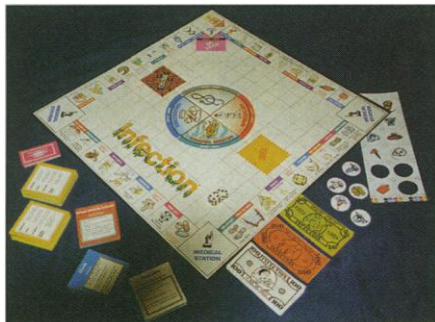
the hot spots" in hopes of getting to the bottom of what's messing up life in the lake.

Animal Legal Eagles Grounded

"I believe the American animal rights movement has collapsed. ... An odd hit here and there against a research lab or a fur farm is sort of a combination of romanticism and juvenility. I started the clinic to train progressive lawyers for a movement. ... As far as I can see there's no place for those people."

—Rutgers University law professor Gary Francione, on why he's closing down his 9-year-old Animal Rights Law Clinic. Meanwhile, animal activism rages in Europe (see p. 1604).

Tired of advancing your token to Boardwalk? You might want to give Infection a try. The rules for this new "light-hearted and educational game of human afflictions," as the manufacturer bills it, are simple: Each player begins with \$500 and five diseases; the last player alive wins. Players get treated at medical centers—if they can afford the fee. They inflict diseases on other players by landing on the Public Restroom, Community Swim Center, or Oops You Sneezed! squares.



Infectious Fun

Chemist Dan Sullivan of LSI Logic in Milpitas, California, says he created the game—and a company called Earwig Enterprises to market it—in response to a friend's challenge "to think of something to make us rich." It's chock-full of information on diseases, which range from halitosis and athlete's foot to bubonic plague and anthrax, and wacky cures, including brain transplants, trips to the ski lodge, and "vitamin overdoses."

The game, which has squares requiring contestants to diagnose a disease by reading the symptoms, has gained a foothold in several high school science classes, says Sullivan. Whether Infection, now available at a handful of California toy stores, will be contagious enough to spread to the rest of the country is a big unknown.

Crisis in Confidence

After growing steadily for 2 decades, Japanese confidence about their nation's global standing in science and technology is in a bit of a slump, according to the latest in a series of public opinion surveys conducted by the Institute of Statistical Mathematics in Tokyo. The response to this item—just one among dozens in the survey—is in line with surveys of business leaders, researchers, and policymakers, according to Nobu-

hiro Muroya, deputy director of planning and evaluation for Japan's Science and Technology Agency. With the economy in the doldrums for most of the '90s, citizens are no longer so sure their country is in the front ranks internationally.

This loss of confidence is reflected in Japanese feelings about their own lives. This year 28% said their living standards had improved over the last decade—compared to 49% in 1983.

PERCENTAGES OF RESPONDENTS RANKING JAPAN'S SCIENCE AND TECHNOLOGY

| | Extremely high | Relatively high | Relatively low | Extremely low† |
|-------|----------------|-----------------|----------------|----------------|
| 1973 | 33 | 49 | 6 | 2 |
| 1978 | 37 | 48 | 5 | 1 |
| 1983* | — | — | — | — |
| 1988 | 43 | 45 | 4 | 1 |
| 1993 | 46 | 43 | 3 | 0 |
| 1998 | 24 | 57 | 10 | 1 |

* The 1983 survey didn't include the item. † The remaining percentages were "other" and "don't know."