

This Week

- 324 Bt-Corn Pollen Can Kill Monarchs
Susan Milius
- 324 Elephants may have started out all wet
Richard Monastersky
- 325 Asteroids formed early on in solar history
Ron Cowen
- 325 Common cold virus is foiled by a decoy
Nathan Seppa
- 326 Closing the loop on the end of a chromosome
John Travis
- 326 Peptide packs in holographic data
Corinna Wu
- 327 Hip bones imply early humans lived large
Bruce Bower
- 327 Fusion fuel zips to core through back door
Peter Weiss

Articles

- 328 Out of the Swamps
How early vertebrates established a foothold—with all 10 toes—on land
Richard Monastersky

- 332 The Hard Truth about Hearts
A test that measures calcium deposits may screen for heart disease
Damaris Christensen
- 335 A Shelter in the Storm
Oklahoma tornadoes give 'strong rooms' their first test
Richard Monastersky

Research Notes

- 331 Biomedicine
Hot spots may signal heart attacks
Bone marrow boosts transplant success
The straight dope
- 331 Physics
A quantum bit comes to life on a chip
Laser may twirl molecules to pieces

Departments

- 322 Books
- 323 Letters



Cover: More than 360 million years ago, our aquatic ancestors developed limbs with hands and feet—adaptations that would eventually enable them to scratch out a new life on land. Along the coast of Valentia Island, Ireland, a set of fossil footprints shows the steps taken by one early amphibian (model in photograph). New fossil discoveries are helping to flesh out the story of how vertebrates moved from water to land. **Page 328.** (Photograph: Jonathan Blair/ National Geographic Image Collection)

Visit SCIENCE NEWS ONLINE for special features, columns, and references.

<http://www.sciencenews.org>

Letters

Other clues to thought and action

The research on how infants learn to coordinate movement ("Minds on the move," SN: 3/20/99, p. 184) would seem to be most applicable in modern homes with floors and central heating. In some cultures, notably in cold climates, infants remain mostly wrapped and strapped to their mothers for up to a year. Has there been any comparative study with these infants?

*Carol Burns
Olympia, Wash.*

Not that I know of. Dynamic-systems theorists also acknowledge the need to investigate social and cultural processes, such as infants' exposure to spoken language, that influence mental development along with their motor experience.

—B. Bower

Myth-taken identity

The first paragraph of "Fickle climate thwarts future forecasts" (SN: 2/27/99, p. 133) mistakenly refers to Sisyphus as the person who constantly reaches for elusive

goals. Sisyphus was doomed to forever push a rock uphill, only to have it roll back down. Tantalus, however, was tempted from above by grapes that moved away when he reached for them, and from below by water that receded when he tried to drink it.

*David Bartczak
Huntington Woods, Mich.*

The story does not characterize Sisyphus as one who reaches for elusive goals, but one who strains. Indeed, he pushed the rock toward the top of the hill and seemed to make progress, only to have the rock slip back down each time.

Similarly, climate researchers are continually making advances, but complications routinely crop up that send them several steps backward.

—R. Monastersky

Dioxin disgust

I feel that the title and subtitle of the article "Redefining dioxins: Once dreaded as industrial poisons, some of these compounds may prove to be natural—even beneficial" (SN: 3/6/99, p. 156) were very misleading. They suggest that the extremely dangerous diox-

ins like TCDD have now been found to be beneficial, when this is not the case, as the article goes on to explain. The content of the article was excellent, as usual

*Lynn Markham
Chippewa Falls, Wis.*

What a letdown to see an article such as "Redefining dioxins" in SCIENCE NEWS. What a perfect out for the producers of these once-dreaded and, yes, still-dreaded industrial poisons.

We are now instructed to label any and every entity that binds to the aryl hydrocarbon receptor (Ahr) as dioxin. Then, we encounter the sidebar telling us that dioxins are actually anticancer agents and that breakdown products of broccoli, cabbage, and brussels sprouts activate the very same Ahr receptor that dioxins do.

To rename beneficial, naturally occurring molecules as dioxins—rather than informing, clarifying, educating, and enlightening—would disinform and defraud, as well as cloud, the issues.

*Linda J. Tanner
Black, Mo*