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Editorial and Business Offices:
1719 N St. N.W., Washington, D.C. 20036
202-785-2255; scinews@scisvc.org

Advertising Representative:
Lewis Edge & Associates, Inc.
366 Wall St., Princeton, N.J. 08540
609-683-7900

Subscription Department:
P.O. Box 1925, Marion, Ohio 43305
For new subscriptions only, call 1-800-247-2160.
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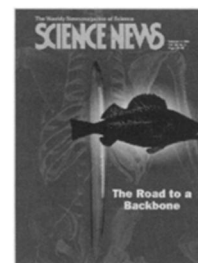
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Cover: More than 500 million years ago, the forces of evolution created the world's first vertebrate out of a spineless creature similar to the modern amphioxus (under fish's tail). Emerging evidence suggests that the rise of vertebrates began with a genetic accident that doubled the number of genes in a particular group of invertebrates. (Photo: Nicholas Holland)



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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*.

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Letters

Noise isn't worst nuisance

Considerable work was done on the subject of sonic booms in the early 1970s ("Sonic Impact," SN: 9/23/95, p. 206). One of the lead research groups, headed by R. I. Thackeray, was the Aviation Psychology Laboratory of the Civil Aeromedical Research Institute of the Federal Aviation Administration in Oklahoma City.

The results of the experiments there and in conjunction with the Swedish government showed that the overpressure wave, which produces an involuntary startle response, was the primary cause of discomfort for the people affected. The noise itself was only a secondary factor. Thus, comparing high noise levels, such as those in factories (not to mention rock concerts), where people become accustomed to the stimulus, is not useful in predicting to what people will adapt.

The team found that about 20 percent of

people never get accustomed to the overpressure wave and "jump out of their skins" 100 percent of the time.

From looking at the photo of the sound test booth, I can make no judgments, but if only acoustic speakers were used, I doubt that an overpressure wave was induced.

It might behoove the researchers to look at some old, but very useful, experimental work.

Joe P. Bailey
Lawton, Okla.

Now all they have to do is figure out a way to lower the subsonic noise so that all the windows of my house don't rattle and all the car alarms on my block don't go off every time the Concorde takes off.

Douglas Braun
New York, N.Y.

More on iron's impact

One suggestion for controlling global warming in "Iron versus the greenhouse"

(SN: 9/30/95, p. 220) is to install a giant (2,000 kilometer across) diaphanous solar deflector at a point 1.5 million miles from Earth in the direction of the sun. This sheet is supposed to deflect 2 percent of the radiation headed toward Earth.

I did some basic calculations and found that these numbers are impossible: The sheet would have to be much larger to do the job.

Shawn Beus
State College, Pa.

You are right. The plan calls for a deflector placed 1.5 million km from Earth, making it much closer than the article stated.

— R. Monastersky

I must disagree with Chisholm's pessimism regarding the advisability of marine fertilization. Surface waters off the coast of Chile are fertilized annually by wind-generat-

Letters continued on p. 79