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This Week

Research Notes

Articles

Cover: New studies raise questions about the accuracy of past deforestation estimates. This Landsat image shows the city of Manaus on the north bank of the Rio Negro (black) where it joins the Rio Solimões (blue) to form the Amazon. Rust color denotes tropical forest; light blue patches are deforested areas, mostly situated along roads and rivers. (Image: NASA/Goddard Space Flight Center)

Departments

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*.

Letters

Eorapator wrapped in controversy

Regarding the letter (SN: 4/17/93, p.243) from dinosaur researcher Fernando Novas, who claims we err in our assessment of *Eoraptor* ("The Accidental Reign," SN: 1/23/93, p.60), we used advanced skeletal traits to argue that *Eoraptor* represents a new species and that it constitutes the most primitive known theropod (flesh-eating dinosaur).

Novas states that *Eoraptor* is "morphologically far from the common ancestor" and that it represents an "ancestral theropod." But only a dozen minor skeletal features separate *Eoraptor* from the common dinosaur ancestor. Indeed, in the flesh, *Eoraptor* and the common ancestor would be difficult to distinguish. And although we believe *Eoraptor* is the most primitive known theropod, it is not an ancestral theropod because it has acquired its own peculiar species traits.

We agree with Novas that it takes a dedicated team to uncover and analyze important new finds. Our success in this regard is due to the hard work of participants from the Universities of Chicago and San Juan (Argentina).

Paul C. Sereno
Catherine A. Forster
Raymond R. Rogers
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University of Chicago
Chicago, Ill.

Avoiding well-tainting fertilizers

Reader John P. Kelly wrote (SN: 4/10/93, p.235) that it would be extremely inefficient to deliver composted materials to farms by truck. That's true, but other methods of distribution are possible, notably, pipelines. Many agricultural communities already have irrigation canals and on-farm plumbing in place. All that would be necessary is to add ground-up organic waste to the water supply for the fields. The farmers would thus fertilize their plants when they watered them.

Chemical fertilizers are extremely toxic to humans, soil microorganisms, animals, and the environment, and some agricultural chemicals persist for years. What's more, many people do not realize that chemical fertilizers can also poison well water, which most rural communities use for drinking.

Elin Larson
Purcellville, Va.

Fossils found in familiar stuff

Scientists and researchers usually prefer precision in their measurements, completeness in their data, and careful accuracy in their definitions of technical terms. It was, therefore, refreshing to read ("Fossils Show Early Diversity of Life," SN: 5/1/93, p.276) that paleobiologist J. William Schopf found his 3.465-billion-year-old fossilized critters in "some sort of sticky substance."

This is a type of matter we nonscientists come across every day. Well, to be precise, *almost* every day.

Carl Dudash
Norfolk, Conn.

Letters continued on p.31