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Cover: Mathematicians have worked out a new, elegant solution to the problem of turning a sphere inside out. That optimal sphere eversion, or optiverse, is now the star of a computer-generated video. **Page 232** (Image: John Sullivan *et al.*/University of Illinois at Urbana-Champaign)

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Letters

Algae trouble

A beautiful fern-like plant is spreading in the Mediterranean and scientists are trying to destroy it ("Rogue Algae," SN: 7/4/98, p. 8). I don't understand it. For millions of years, long before man was on Earth, one plant or one ecosystem replaced another. Now, scientists sometimes ask for millions of dollars to destroy the new plant. Scientists apparently want to freeze the environment to what was here in 1492. This is crazy, arrogant. They pretend to know more than nature about what plant belongs where.

Thomas C. Robinson Miami, Fla.

The article didn't mention changes in water quality. Along the eastern coast of the United States, exotic algae blooms are associated with excess nutrients from concentrated animal-feeding operations and huge concentrations of humans, as well as the plethora of biologically active chemicals used everywhere

I would suspect that the Mediterranean

currently contains more nutrients and synthetic chemicals, has a higher temperature, and receives more ultraviolet light than it did just a few decades ago. It is not surprising that the ecosystem changes in response.

Bill Duessing Stevenson, Conn.

Most modern schemes of classification place algae in the protist kingdom or a separate kingdom of their own; none view them as plants. More importantly, how could a small fragment of a giant single cell contain the genetic information to form a clone unless the alga is multinucleate?

John Covert Livonia, Mich.

Thanks for pointing out how times are changing. Once the world was simple. Taxonomists divided living things into just two kingdoms: plants and animals. Increasingly over the past 15 years, they've been dividing organisms among five or seven kingdoms, observes James N. Norris, curator of marine biology at the Smithsonian Institution in Washington, D.C. Under these systems, he says, "most biologists

would place algae into Protista." Yet, "for the sake of convenience, most of us discuss things as if they were still just plants or animals"—explaining why even Caulerpa experts such as Norris himself continue to refer to this alga as a plant. The huge, one-celled alga does contain many nuclei—any one of which can regenerate a new specimen.

—J. Raloff

Is there not a possibility of harvesting the alga as stock for biomass fuels? Might some of the seafloor be usable for growing biomass feedstocks as alternatives to fossil fuels?

Michael C. MacCracken National Assessment Coordination Office Washington, D.C.

In some initial efforts to cull the Mediterranean algae, inventors employed the equivalent of huge, underwater lawn mowers to shear off the Caulerpa, explains Alexandre Meinesz of the University of Nice-Sophia Antipolis in France. However, the effort was quickly halted because it increased the weedy species' spread. Today, Meinesz says, the goal is to kill the plant. Where small patches are pulled out, technicians try to vacuum or net any stray fragments. —J. Raloff

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