

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 151, No. 3, January 18, 1997

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SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$49.50 for 1 year or \$88.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, 1719 N Street, N.W., Washington, D.C. 20036. Preferred Periodicals postage paid at Washington, D.C., and additional mailing office.

POSTMASTER: Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, Ohio 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided. Copyright © 1997 by Science Service. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A. on recycled paper. ♻️ Reproduction of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

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Letters

Taxing the imagination

The hypothesis of phototaxis as an intermediate step to photosynthesis seems strange and confusing ("The Light at the Bottom of the Ocean," SN: 9/7/96, p. 156). Phototaxis is a process more like a neurological function. To say that it is linked with photosynthesis is like saying "organisms attracted to light might start photosynthesizing."

Evolutionarily, if food is present with light, organisms attracted to light should be more successful. If an organism already near light suddenly mutates to be able to make use of light as a food source, it will be even more successful.

Also, since the shrimp have not been captured uninjured, why not breed them? The offspring should be fine and capable of being tested for low-light sensitivity.

Susanna Dzejachok
Cleveland, Ohio

Clay feet of Sugarscape gods?

Sugarscape sounds like fun, but whether it is the cutting edge of social science or yet another supposedly quantitative cul-de-sac remains to be seen ("The Gods of Sugarscape," SN: 11/23/96, p. 332).

Computer models present convincing results when processes or events can be given mathematical expression in accord with generally accepted physical laws. As there are few, if any, such laws for human affairs, what do Sugarscape's "metaphors" mean?

CORRECTIONS

David H. Spodick, whom SCIENCE NEWS reported as semiretired, is in fact professor of medicine at the University of Massachusetts Medical School in Worcester ("Condition CRITICAL," SN: 12/14/96, p. 376). Photos of the robotic hawkmoth ("Robotic moth reveals key to insect flight," SN: 12/21&28/96, p. 390) were taken by Coen van der Berg of Vrije University in Amsterdam.

Their connection to reality is tenuous; at best, they might be a way to elevate impressionistically the model's initial assumptions.

That's no small thing, but hardly the harbinger of 21st-century science, unless critical reflection in the 21st century will require a computer.

Charles T. Rubin
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Pittsburgh, Pa.

Epstein and Axtell show that their Sugarscape model does not attain a steady state under certain configurations of agent behavior, leading Epstein to conclude that "the assumption that we can let markets produce efficient allocations on their own is deeply challenged.... We see how brittle traditional economic theory really is."

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