

After Amateur Hour

Author: Beardsley, Timothy M.

Source: BioScience, 62(5) : 447

Published By: American Institute of Biological Sciences

URL: <https://doi.org/10.1525/bio.2012.62.5.1>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

PUBLISHER

Richard T. O'Grady

EDITOR IN CHIEF

Timothy M. Beardsley

MANAGING EDITOR

James M. Verdier

BOOK REVIEW EDITOR

PEER REVIEW / PRODUCTION COORDINATION

Jennifer A. Williams

MANUSCRIPT EDITOR

Nathan N. True

Editors: Eye on Education: Beth Baker (educationoffice@aibs.org); Feature articles: Beth Baker (features@aibs.org); Washington Watch: Robert E. Gropp (publicpolicy@aibs.org).

Editorial Board: Agriculture: Marshall A. Martin; Animal Behavior: Janice Moore; Animal Development: Paula Mabec; Botany: Kathleen Donohue; Cell Biology: Randy Wayne; Conservation: Nick Haddad; Ecology: Scott Collins, Daniel Simberloff; Ecology and Conservation: David Wilcove; Ecotoxicology: Judith S. Weis; Education: Charlene D'Avanzo; Environmental Microbiology: Rita R. Colwell; Environmental Policy: Gordon Brown, J. Michael Scott; Evolutionary Biology: James Mallet; Genetics and Evolution: Martin Tracey; History and Philosophy: Richard M. Burian; Human Biology: David L. Evans; Invertebrate Biology: Kirk Fitzhugh; Landscape Ecology: Monica Turner; Mammalogy: David M. Leslie Jr.; Microbiology: Edna S. Kaneshiro; Molecular Biology: David Hillis; Molecular Evolution and Genomics: David Rand; Neurobiology: Catherine E. Carr; Plant Development: Cynthia S. Jones; Policy Forum: Eric A. Fischer; Population Biology: Ben Pierce; Professional Biologist: Jean Wyld; Remote Sensing and Computation: Geoffrey M. Henebry; Statistics: Kent E. Holsinger; Vertebrate Biology: Harvey B. Lillywhite.

BioScience (ISSN 0006-3568; e-ISSN 1525-3244) is published 12 times a year by the American Institute of Biological Sciences, 1900 Campus Commons Dr., Suite 200, Reston, VA 20191, in collaboration with the University of California Press. Periodicals postage paid at Berkeley, CA, and additional mailing offices. **POSTMASTER:** Send address changes to *BioScience*, University of California Press, Journals and Digital Publishing, 2000 Center Street, Suite 303, Berkeley, CA 94704-1223, or e-mail customerservice@ucpressjournals.com.

Membership and subscription: Individual members, go to www.aibs.org/aibs-membership/index.html for benefits and services, membership rates, and back issue claims. Subscription renewal month is shown in the four-digit year-month code in the upper right corner of the mailing label. Institutional subscribers, go to www.ucpressjournals.com or e-mail customerservice@ucpressjournals.com. Out-of-print issues and volumes are available from Periodicals Service Company, 11 Main Street, Germantown, NY 12526-5635; telephone: 518-537-4700; fax: 518-537-5899; Web site: www.periodicals.com.

Advertising: For information about display and online advertisements and deadlines, e-mail adsales@ucpressjournals.com. For information about classified placements and deadlines, contact Jennifer A. Williams, AIBS (jwilliams@aibs.org).

Copying and permissions notice: Authorization to copy article content beyond fair use (as specified in sections 107 and 108 of the US Copyright Law) for internal or personal use, or the internal or personal use of specific clients, is granted by the Regents of the University of California on behalf of AIBS for libraries and other users, provided that they are registered with and pay the specified fee through the Copyright Clearance Center (CCC), www.copyright.com. To reach the CCC's Customer Service Department, call 978-750-8400 or e-mail info@copyright.com. For permission to distribute electronically, republish, resell, or repurpose material, use the CCC's Rightslink service on JSTOR at <http://www.jstor.org/rf/ucal/bio>. Submit all other permissions and licensing inquiries through the University of California Press's Rights and Permissions Web site, www.ucpressjournals.com/reprintinfo.asp, or e-mail journalspermissions@ucpress.edu. **Abstracting and indexing:** For complete abstracting and indexing information, please visit www.ucpressjournals.com.

© 2012 American Institute of Biological Sciences. All rights reserved. Printed at Allen Press, Inc.

BioScience®

A Forum for Integrating the Life Sciences

American Institute of Biological Sciences

After Amateur Hour

Researchers and resource managers must make ever more use of computer programs to handle data, modeling, and analysis. Nowhere is this truer than in ecosystem-based management (EBM), an approach advocated by many *BioScience* authors working in conservation, especially in coastal zones. Commercial software developers have not rushed to develop the tools needed, so it is fortunate that hundreds of graduate students and researchers funded to do other work have donated their time to “skunkworks” efforts to write suitable code and have then distributed it for free.

Not so much, say Corrie Curtice and her colleagues at Duke University's Marine Geospatial Ecology Laboratory and at NatureServe. They describe their investigation of EBM code development in their article that begins on p. 508. They heard, over the course of five years' work with users of EBM software, complaints that the tools “were often difficult to use, lacked documentation, contained numerous bugs, and were poorly supported and maintained.” Interviews with tool developers (analyzed, incidentally, with the help of commercial software) confirmed the suspicion that they were motivated by the desire to see their work widely used rather than the desire to build revenues. The developers lacked the appetite to administer and promote a business (or if they were government employees, could not).

Accordingly, they mostly rejected charging substantial license fees. Some said they were conscious that their funder had not specifically authorized or requested the development of a software tool. The resulting lack of steady revenues deterred them from hiring experienced professional software developers or from researching the market. Many had not properly documented their product.

In consequence, promising concepts often failed when supporting them became too big a job. Some became obsolete after their originators moved on to other projects—a familiar story that explains why many research data are effectively lost to science.

Yet even in fields, such as EBM, that lack a large market, it is possible for a project to thrive, Curtice and her coauthors discovered. The success stories occurred when projects found dogged champions willing to involve influential advocates in boosting awareness of and growing the product. In particular, the champions searched for stable funding.

Curtice and her colleagues have important recommendations for both funders and developers of software—and not just EBM software. Those recommendations probably apply to other specialized scientific applications as well. Ensuring the widespread availability and currency of a software tool is heavier lifting than the original writer might guess: A neat idea is not enough. And promotion and maintenance of a product demand skills that he or she may have no interest in learning. Funders as well as altruistic code writers will do well to reflect on these findings—and to adapt accordingly if they want to ride a wave into the future.

TIMOTHY M. BEARDSLEY
Editor in Chief

doi:10.1525/bio.2012.62.5.1