

The Twisting Path to Collaboration

Author: Beardsley, Timothy M.

Source: BioScience, 63(9) : 695

Published By: American Institute of Biological Sciences

URL: <https://doi.org/10.1525/bio.2013.63.9.1>

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, 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 Digital Library 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 is an innovative nonprofit that 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: Rick Bonney, Gordon Brown, Richard M. Burian, Catherine E. Carr, Joseph Cloud, Scott Collins, Rita R. Colwell, Charlene D'Avanzo, Kathleen Donohue, David L. Evans, Cassandra G. Extavour, Eric A. Fischer, Kirk Fitzhugh, Nick Haddad, Geoffrey M. Henebry, Cynthia S. Jones, Linda A. Joyce, Edna S. Kaneshiro, David M. Leslie Jr., Harvey B. Lillywhite, Alan C. Love, Paula Mabree, Marshall A. Martin, Janice Moore, Peter B. Moyle, Ben Pierce, Jason Podrabsky, J. Michael Scott, Daniel Simberloff, Martin Tracey, Monica Turner, Randy Wayne, Judith S. Weis, David S. Wilcove, Jean A. Wyld.

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, 2120 Berkeley Way, Berkeley, CA 94704-1012, or e-mail customerservice@ucpressjournals.com.

Membership and subscription: Individual members, go to <https://aibs.site-ym.com/?page=IndMem> for benefits, services, and additional information. 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 customer service@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/r/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.
© 2013 American Institute of Biological Sciences.
All rights reserved. Printed by The Sheridan Press.

BioScience®

A Forum for Integrating the Life Sciences
American Institute of Biological Sciences

The Twisting Path to Collaboration

Eric D. Roy and his colleagues provide, in their article that starts on page 745, important data substantiating often-heard individual opinions about the difficulties facing career scientists who would like to pursue interdisciplinary research. Not only is such a course intrinsically hard—because of the mental effort required to learn how to use new concepts correctly—but many of the natural and social scientists who participated in a survey pointed to substantial institutional barriers placed in the way, apparently willfully, by guardians of pure disciplinary research. Investigators with the temerity to engage seriously with those in other disciplines must, it seems, be prepared to pay a serious price.

The difficulties start as soon as interdisciplinary collaboration starts: Most of the respondents in Roy and his colleagues' study acknowledged tensions and problems communicating with prospective colleagues in different disciplines. There is often a distinct lack of departmental support for such ventures, and it is undeniably true that research with a sociological component, in particular, faces methodological difficulties likely to bewilder outsiders not schooled in social science: Human beings are uniquely tricky research subjects. The paucity of previous data about this topic speaks volumes, and Roy and his colleagues acknowledge the limitations of their survey.

But anyone looking to be a successful scientist would have to worry most about the likely impact of interdisciplinary collaboration on his or her assessed productivity—judged, naturally, by the number of published articles in high-impact-factor journals. Given the pressure to produce—to satisfy tenure and promotion committees—and the understandable desire for stable employment at a decent salary, many researchers with interesting ideas must have secretly decided that a creative interdisciplinary project wasn't worth it.

It is galling that such barriers persist at a time when interdisciplinary research on coupled social and ecological systems is becoming more important: Humankind's dominance and incomplete understanding of global ecosystems are not news. Moreover, the barriers may also include some that Roy and his coauthors do not discuss. The notion of studying coupled social and ecological systems is unsettling to many, because it seems to threaten the venerable concept of free will. That pervasive idea, enshrined in Christian theology since Augustine and reinforced by Descartes, rejects the notion that humans' behavior can be understood in naturalistic terms. Defensiveness about humans' capacity to act freely possibly helps explain why sociological research funded by the National Science Foundation is perennially faced with special scrutiny in Congress.

Courageous natural scientists know, however, that humans are part of nature's dominion and will strive to understand their most perplexing research subjects in its terms. And so back to those university administrators who guard pure disciplinary excellence: Their apparently willful placement of barriers to interdisciplinary collaboration can be studied. It might even be possible to understand it naturalistically and to devise strategies to counter it. Psychologists can probably come up with some hypotheses. For example, senior figures in any field tend to worry about preserving their legacy. Perhaps keeping the younger generation on the straight and narrow satisfies that urge. It might be a good subject for a study.

TIMOTHY M. BEARDSLEY
Editor in Chief

doi:10.1525/bio.2013.63.9.1