

Editorial Staff

Editor: William Leonard
Professor Emeritus of Science Education
Clemson University
530 Village Creek Road, Mountain Rest, SC 29664
Leonard@clemson.edu

Associate Editor: William McComas, University of Arkansas

Managing Editor: Mark Penrose

ABT Production Office: 1313 Dolley Madison Blvd., Ste. 402
McLean, VA 22101
Phone: (888) 501-NABT
Fax: (800) 883-0698
E-mail: managingeditor@nabt.org
Web site: www.nabt.org

In Appreciation

Christine S. Chantry • 1952–2003

Department Editors

Biology Today: Maura C. Flannery, flannerm@stjohns.edu
Book Reviews: Elizabeth Cowles, cowlese@easternct.edu
Classroom Materials Reviews: Chris Monsour, chris_monsour@tiffin.k12.oh.us
Sacred Bovines: Douglas Allchin, allchin@sacredbovines.net
Classroom Media Reviews: Jeffrey Sack, cnidaria@comcast.net

Advertising Sales

Shannon Reid, VP Sales, Network Media Partners
(410) 584-1932, abt@networkmediapartners.com

Guidelines for Authors

Guidelines for authors may be found at
<http://www.nabt.org/websites/institution/index.php?p=68>

The American Biology Teacher (ISSN 0002-7685, e-ISSN 1938-4211) is published nine times a year (monthly except June and July, Nov/Dec combined) for the National Association of Biology Teachers in collaboration with University of California Press, Journals and Digital Publishing, 2000 Center Street, Suite 303, Berkeley, CA 94704-1123. Periodicals postage paid at Berkeley, CA, and additional mailing offices. POSTMASTER: Send address changes to ABT, University of California Press, Journals and Digital Publishing, 2000 Center Street, Suite 303, Berkeley, CA 94704-1223. E-mail: customerservice@ucpressjournals.com.

The American Biology Teacher is the official peer-reviewed journal of the National Association of Biology Teachers. Manuscripts should be sent to William Leonard, 530 Village Creek Road, Mountain Rest, SC 29664, e-mail: Leonard@clemson.edu. The comments and opinions expressed in this publication are not attributed to and do not necessarily represent the views of the National Association of Biology Teachers. Announcements and advertisements in this journal for products do not imply endorsement of or by NABT.

Membership Information

NABT membership is \$75 a year for full membership and \$149 for organizational membership in the United States, Canada, and Mexico; \$139 for full membership elsewhere. \$48 of annual membership dues applies to a subscription of *The American Biology Teacher*. Student membership is \$25 and retired membership is \$54 (\$39 online only) if that person has been an NABT member for 10 years or more and is retired.

Subscriptions are offered on a calendar-year basis; members and subscribers receive all issues in the volume for the year in which their subscription is entered.

See www.ucpressjournals.com for single issue and institutional subscription orders, back issues from volume 69 forward, and claims information. Domestic claims for nonreceipt of issues should be made within 90 days of the mail date; overseas claims within 180 days. Mail dates can be checked at: <http://www.ucpressjournals.com/ucpress.asp?page=ReleaseSchedule>. UC Press does not begin accepting claims for an issue until thirty (30) days after the mail date. For back issues before volume 69, contact NABT at publication@nabt.org.

Inquiries about advertising can be sent to abt@networkmediapartners.com. For complete abstracting and indexing coverage for the journal, visit <http://www.ucpressjournals.com>. All other inquiries can be directed to customerservice@ucpressjournals.com.

Copying and permissions notice: Authorization to copy article content beyond fair use (as specified in Sections 107 and 108 of the U.S. 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 the National Association of Biology Teachers 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, phone 978-750-8400 or write to info@copyright.com. For permission to distribute electronically, republish, resell, or repurpose material, and to purchase article offprints, use the CCC's Rightslink service, available on Caliber at <http://caliber.ucpress.net>. Submit all other permissions and licensing inquiries through University of California Press's Rights and Permissions website, www.ucpressjournals.com/reprintInfo.asp, or via e-mail: journalspermissions@ucpress.edu.

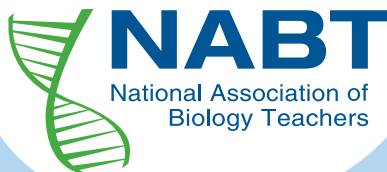


Printed by Allen Press on Forest Stewardship Council™-certified paper.
© 2011 National Association of Biology Teachers All rights reserved.

For more information, visit www.nabt.org

Board of Directors

President: Dan Ward
President-Elect: Donald French
Past President: Marion "Bunny" Jaskot
Secretary/Treasurer: Bob Melton
Director at Large: Dennis Gathmann
Director at Large: William McComas
Director/Coordinator: Mark Little
Director/Coordinator: Harry McDonald



Committee Chairs

ABT Journal Advisory Committee: Sherry S. Herron
Awards Committee: Betsy Ott
Conference Committee: Mark Little
Constitution & Bylaws Committee: Ann Lumsden
Finance Committee: Bob Melton
Honorary Membership Committee: Donald French
Global Perspectives Committee: Sandy Doss
Nominating Committee: Carl Koch
Occasional Publications Committee: Rich Poole
Professional Development Committee: Catherine Ambos

Regional Coordinators

Region I (CT, ME, MA, NH, RI, VT): Margaret Carroll
Region II (DE, DC, MD, NJ, NY, PA, VA): William Anderson & Sandra Litvin
Region III (IL, IN, MI, OH, WI): Chris Monsour
Region IV (IA, KS, MN, MO, NE, ND, SD): Harry McDonald
Region V (KY, NC, SC, TN, WV): Bobbie S. Hinson
Region VI (AL, FL, GA, LA, MS, PR): Shelia Smith
Region VII (AZ, AR, NM, OK, TX): Catherine Ueckert
Region VIII (CO, ID, MT, NV, UT, WY): Mark Little
Region IX (AK, CA, HI, OR, WA, Pacific Territories): John W. Fedors
Region X (Canadian Provinces & Territories): Bob Malyk

Section Chairs

AP Biology Section: Sharon Radford
BioClub Section: George Sellers
Elementary/Middle School Section: Vacant
Four-Year College Biology Teachers Section: Eileen Gregory
Global Perspectives Section: Pamela Harrell
Outreach Coordinator & Informal Educator Section: Mel Limson
Role & Status of Women in Biology Education Section: Vacant
Two-Year College Biology Teachers Section: Nilo Marin
Retired Members Section: Dennis Gathmann • Advisor: Monroe Cravats