

As the 20th century closed, the nation's biology teachers were able to stay on top of three of the biggest issues of the 1990s through membership in NABT and by reading *The American Biology Teacher*. These major issues were

- The *National Science Education Standards*
- The teaching of evolution
- Animal rights

### ○ National Standards

Members were informed about progress on the new *National Science Education Standards* well before their 1996 release. Not only did NABT (the executive director and the board) establish a task force to review materials and identify how and where they would meet the standards, they prepared educational materials that met the expectations of the NSES and had an “instrument” on the Web for evaluating alignment of curricula, programs, and materials.

### ○ Teaching of Evolution

The second major issue of the decade continues today – the evolution/creationism debate. Throughout the nineties, numerous *ABT* editorials addressed the issue, and NABT released a position statement, “The Teaching of Evolution.” In addition to numerous programs at the national conventions and articles throughout the decade, *ABT* editor Randy Moore wrote an eight-part series of articles (September 1998–May 1999) about the legal history of the evolution/creationism controversy. One of the letters to the editor that followed was from Don Aguillard, lead plaintiff in *Aguillard v. Louisiana*, the case that eventually produced the U.S. Supreme Court's ruling *Edwards v. Aguillard*, 1987, which stated that the teaching of creationism in public school science classes is unconstitutional. Dr. Aguillard wrote: “The biology profession owes you a debt of gratitude for reminding us that we all have an obligation to fight against what we know is wrong” (Aguillard, 1999).

### ○ Animal Rights

Throughout the decade, biology teachers faced numerous challenges from animal rights groups. In 1992, NABT produced a monograph, “Responsible Use of Animals in the Classroom,” followed by three regional workshops of the same name. A position statement, “The Use of Animals in Biology Education,” came soon after. For the remainder of that year, and throughout much of the decade, the journal published several articles related to animal welfare, the use of animals in

research, and dissection. Among the many letters to the editor was one from the actress Alicia Silverstone, who felt that teachers should inform students of the option not to dissect (Silverstone, 1998).

### ○ NABT Evolves

NABT was changing in the nineties. Pat McWethy, part-time executive director, resigned, Lu Bukovsky took over in the interim, and Wayne Carley, a biologist, was hired as NABT's first full-time director. During McWethy's tenure, 1984–1994, NABT's staff increased from 4 to 17, and membership doubled. In 1992, the Long Range Planning Committee adopted a new mission statement, “NABT is dedicated to leadership for biology education” (Mertens, 1995). The statement was revised in 1998: “The National Association of Biology Teachers empowers educators to provide the best possible biology and life science education for all students” (Carley, 1999).

The Four-Year College Section began to bloom during the nineties, with poster sessions, the Four-Year College reception, and presentations at the annual convention. They also recognized that university faculties were hired for their research and not for their teaching skills, and that this was a problem for many large universities. The Four-Year College Section stressed good teaching and established the Four-Year College Teaching Award; in 1992, Ann S. Lumsden (Florida State University biology faculty) was the first recipient. The Four-Year and the Two-Year College Sections were independent of each other at this time, and both were very active and productive throughout the nineties. The Four-Year College Section invited all of the Two-Year College Section members to their early poster sessions at the national convention and was very pleased with the attendance. During 2001–2004, the sections began doing workshops and sessions together, sharing guest speakers, and collaborating on projects.

In 1993, the national convention in Boston saw the largest attendance to date: 2500 teachers. The Distinguished Service Award recipient and banquet speaker, Nancy Wexler of Columbia University, wowed the audience with her fascinating talk and her humanity. Ivo Lindauer was NABT president at the time, and he remembers the two days that he spent with Dr. Wexler at the convention:

She...spent the day visiting with and signing autographs with the many teachers who came to her presentation and to talk with her. She became one with the group and discussion of Huntington's disease (which she identified) and other issues went well into the early hours of the following morning. (I. Lindauer pers. comm. with Pat Waller)

**Table 1. NABT monographs published during the 1990s.**

1.	<i>The Responsible Use of Animals in Biology Classrooms including Alternatives to Dissection.</i> 1990. Rosalina V. Hairston, Ed.
2.	<i>Oceanography for Landlocked Classrooms.</i> 1990. Gerry M. Madrazo, Jr., and Paul B. Hounshell, Eds.
3.	<i>A Sourcebook of Biotechnology Activities.</i> 1990. Alison M. Rasmussen and Robert H. Matheson III, Eds.
4.	<i>Favorite Labs from Outstanding Teachers.</i> 1991. Daniel S. Sheldon and John E. Penick, Eds.
5.	<i>Bitten by the Biology Bug.</i> 1991. Maura C. Flannery.
6.	<i>Favorite Labs from Outstanding Biology Teachers.</i> 1993. Linda R. Sanders, Ed.
7.	<i>Working with DNA &amp; Bacteria in Precollege Science Classrooms.</i> 1993. Toby M. Horn; edited by Kathy Frame.
8.	<i>Order and Diversity in the Living World: Teaching Taxonomy and Systematics in Schools.</i> 1993. Jorge V. Crisci, Joseph D. McInerney, and Patricia J. McWethy.
9.	<i>Basic Biological Concepts: What Should the World's Children Know? Proceedings from the IUBS/CBE Symposium.</i> 1994. Patricia J. McWethy, Ed.
10.	<i>Biology Labs That Work: The Best of How-To-Do-Its.</i> 1994. Randy Moore, Ed.
11.	<i>Investigating Evolutionary Biology in the Laboratory.</i> 1994. William F. McComas, Ed.
12.	<i>Learning Biology with Plant Pathology.</i> 1994. Juliet E. Carroll.
13.	<i>Using Fast Plants &amp; Bottle Biology in the Classroom.</i> 1994. National Council of Agricultural Education, AgriScience Institute and Outreach Program.
14.	<i>Biology on a Shoestring.</i> 1995. Mary Louise Bellamy and Kathy Frame, Eds.
15.	<i>Bioinstrumentation: Tools for Understanding Life.</i> 1996. James H. Wandersee, C. T. Lange, and Dennis R. Wissing, Eds.
16.	<i>Investigating Plants: Hands-On, Low-Cost Laboratory Exercises in Plant Science.</i> 1996. Thomas R. Sinclair and Marty Johnson.
17.	<i>Middle School Idea Book: A Compendium of Previously Published NABT Ideas and Activities Adapted and Reprinted for Middle School Teachers and Their Students (Grades 5–8).</i> 1996. Catherine A. Wilcoxson, Ed.

Access Excellence, an award program for high school biology teachers sponsored by Genentech, advertised in the journal with several multipage ads, in color, beginning in April of 1995. As part of the publicity for Access Excellence, actress and comedian Lily Tomlin opened the 1996 banquet during the convention in Charlotte, North Carolina. Francis Collins, then director of the Human Genome Project, followed her, and the attendance, 545, made it the largest banquet to that point. The Access Excellence program brought countless new members to NABT.

Conventions were very important to NABT during the nineties. They were a way for teachers, faculty, and all attendees to receive updates about the latest medical breakthroughs, medical research, and recent discoveries in the field of biology. The CDC from Atlanta was always a strong supporter and often participated in conventions, as did hospitals and medical centers that provided faculty and physicians for featured speakers. In a time before the widespread use of the Internet, every convention provided biological content, laboratory ideas, an introduction to the latest classroom resources, and a chance to network with other biology professionals from across the country and around the world. An extremely successful event, the First Timers' Breakfast, started in 1992 by then President Alton Biggs, continues today to give first-time convention goers a chance to meet with those who can guide them throughout the convention and help to establish relationships. It's difficult to ignore the collegiality opportunities afforded by the face-to-face interactions that are so much a part of each convention.

## ○ Additional Topics of Interest

*The American Biology Teacher* reflected other themes of the decade. Biotechnology, for example, was a relatively new field (*Biotechnology in the High School Biology Curriculum – The Future is Here*, ABT, Nov. 1994), and NABT responded to support teachers. Although it seems commonplace now to do biotechnology labs in our classrooms, in the nineties it was relatively new, and the equipment needed to bring those labs to high school students was well beyond the budgets of most districts. Lab exercises to accompany *Biotechnology on a Shoestring* were developed early in 1996 and were pilot tested during the 1996–1997 school year. They were extremely well received and subsequently used in classrooms throughout the country.

Other important issues of the decade were reflected in the number of related journal articles. It was obviously imperative to keep members informed about both evolution and genetics, but another field of research reached new importance during the nineties as well. Congress and the President had declared the nineties to be the Decade of the Brain, calling for a national commitment to neuroscience research. NABT, in partnership with the Society for Neuroscience, made neuroscience lab manuals available for free to all members.

ABT itself evolved during the nineties. In 1997, the journal added an extra issue, moving from 8 to 9 issues a year. For several issues throughout the nineties, Neil Campbell had a fascinating column, “A conversation with . . .,” where he wrote of his interviews with noted

scientists such as evolutionary biologist, taxonomist, ornithologist, and science historian Ernst Mayr (Campbell, 1992). The practical column “How-To-Do-It” grew from a few columns in each issue to an average of 6–8 per issue by the end of the decade. Clearly the Internet had not yet taken over as a primary source of good resources. In 1990, *ABT* vol. 51, no. 6 received the Silver Award in the Neographic Competition given for excellence in graphic arts and publishing (*News & Views*, May/June 1990, p. 4).

The *American Biology Teacher* also provided a way for teachers to keep track of association business. For example:

- 1996 was the first year with a home page on the “world wide web”!
- In 1996, a teacher from Pago Pago, American Samoa, became the first from that jurisdiction (Pacific Territories) to be recognized with the Outstanding Biology Teacher Award.
- In the May 1995 issue, NABT announced the Middle School Teaching Award.
- In 1995, the Multicultural Affairs Committee became an official section of NABT.
- Throughout the decade, NABT was selling numerous monographs, books, and other publications, and each issue of *ABT* contained an order form and, often, a description of newly released publications (Table 1).

## ○ Moving into the New Century

With the end of the 1990s, NABT moved into a new century. With widespread use of the Internet, implementation of the *National Science Education Standards*, the ongoing controversy surrounding the teaching of evolution, and biological advances coming at an

ever faster rate, it was apparent that NABT and *The American Biology Teacher* would continue to play an important role for biology educators everywhere.

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