

HISTORY OF THE DEPARTMENT OF FORESTRY AND ENVIRONMENTAL
RESOURCES AT NORTH CAROLINA STATE UNIVERSITY, 1979-2008

II. FACULTY¹

Any history of an academic department must begin with its faculty and student body as these are, in the last analysis, the primary reason it exists. Because students come and go and faculty (for the most part) are longer tenured, we begin with the faculty.

The Forestry faculty at NC State has always been a multidisciplinary group. Ever since the faculty began its first period of growth in the late 1950s and 1960s it has had in addition to a core of professionally trained foresters a significant number of members who were not trained as foresters. Most of these had expertise in forest biology broadly defined and were united to the core of foresters by a common interest in trees as organisms and in forests as ecosystems. The eclectic nature of the forestry faculty has always been one of its great strengths, providing a multidisciplinary teaching and research base. As the Department continued to grow, it added both foresters and those whose work impinged on tree growth and forest management so that today fully one-third of the faculty have been trained in some other primary discipline and would be quite at home in another of NC State's academic departments.

Perhaps the greatest change in the faculty over the last 30 years has been its increase in size. Whereas there were about 20 full-time, tenure track faculty in 1979, the number increased to over 40 during the 1980s. Continued growth and the addition of the Extension faculty to the Department in 1990 increased the number to over 50 by the mid-90s. It continues at approximately that level today. Only one of the 1979-80 faculty members held emeritus status (Bruce J. Zobel²) but by 2005 there were 8 emeritus faculty. Only 2 of the 20 faculty in 1980 (Richard R. Braham, Douglas J. Frederick) remain as active faculty in 2008 and 9 who were active in 1979 (Arthur W. Cooper, Charles B. Davey, James D. Gregory, Awatif E. Hassan, D. Lester Holley, Robert C. Kellison, Richard A. Lancia, James R. McGraw, and Robert J. Weir) now hold emeritus status. Bruce Zobel remained an emeritus professor for the full 30 year period! Thus between 1979 and 2008 there was very nearly a complete turnover in tenure track faculty.

The Department faculty has undergone two concentrated periods of retirement and subsequent addition of new members. Between 1977 and 1979 the Department lost 6 of its oldest members: Ralph C. Bryant,

¹ A full list of all tenure track and equivalent faculty is shown in Appendix 1 together with brief information about their careers at NC State.

² A faculty member's full name is used the first time he/she is mentioned in the text. Thereafter, the name used for that person is the name by which he/she was most frequently known by peers and students.

John W. Duffield, Joseph O. Lammi, T. Ewald Maki, and Bruce J. Zobel to retirement and Bill Johnson to death. These men were, to a large extent, responsible for establishing NC State's reputation as a national leader in forestry education and research. Thus, going into the decade of the 1980s the Department had only 7 professors as opposed to 10 associate professors and 7 assistant professors. By the late 1990s the department's age structure shifted to 17 professors and 12 each of associate and assistant professors. Between 1995 and 2008 11 faculty members retired (H. Lee Allen, Art Cooper, E. Carlyle Franklin, Awatif Hassan, Lester Holley, Larry Jervis, Bob Kellison, Richard A. Lancia, Jim McGraw, Bob Weir (and Chuck Davey in 1992). Consequently, in 2008 the Department has nearly twice as many associate and assistant professors (32) as professors (17). It appears that another rash of retirements is not likely in the near future.

The faculty has also changed dramatically in diversity of gender and of discipline. The Department has been relatively successful in increasing its number of women members. Whereas there was only one tenure track female member in 1979, there are now 12. It has had less success in recruiting minority members, never having had more than 1 African-American faculty member, Jerry L. Bettis from 1983-2000 and Stacy A. C. Nelson from 2002 to the present. Perhaps the biggest change in disciplinary mix involves a large increase in the number of members with interests in the social science dimensions of forestry. This reflects the Department's conscious effort to move more strongly into areas such as policy, economics, international forestry, and resource management broadly defined where it had limited expertise prior to 1979. In addition, entire groups of faculty have developed in previously unrepresented areas, such as forest biotechnology, remote sensing and geo-based information systems, information and systems science, resource policy, and international forestry. The move of the Fisheries and Wildlife Program in 2002 from the Department of Zoology also brought an expertise that previously had been shared with Zoology.

Significant additions to the faculty that brought new disciplinary breadth to the Department's faculty include:

- Gary B. Blank (1979) to develop an across-the-curriculum writing program;
- E. Carlyle Franklin (1980) to head a research program specifically designed to speak to the needs of small forest land owners;
- Siamak Khorram (1980) in remote sensing and geobased information systems;
- Russell Lea (1980) in hardwood silviculture;
- Steven E. McKeand (1980) as a member of the Tree Improvement Cooperative faculty;
- H. Lee Allen (1981) as Director of the Forest Nutrition Cooperative;

- William S. Dvorak (1981) to direct the Central America and Mexico Coniferous Resources Cooperative (CAMCORE) a unique program with an initial mission to find and preserve threatened genotypes of Central American and Mexican pines;
- David A. Adams (1982) with expertise in environmental impact analysis and natural resource policy;
- J. Edward deSteiguer (1982) USDA Forest Service in economics and policy;
- Lawrence A. Morris (1982) in forest soils and nutrition;
- Henry V. Amerson (1983) in tissue culture and biotechnology;
- Gary Kronrad (1983) in small landowner forestry;
- L. John Frampton (1984) in tree improvement and in 1996 to Christmas tree research;
- Joseph P. Roise (1984) in systems analysis and management science;
- Anne M. Stomp (1986) and Ronald R. Sederoff (1987) to initiate what was to become the Department's major new emphasis in biotechnology;
- Leslie Tolley-Henry (1987) in forest physiology;
- Edwin L. Jones (1988) in extension wildlife resources;
- Ross W. Whetten (1989) in forest biotechnology;
- Robert C. Abt (1991) in forest economics;
- Theodore H. Shear (1991) to develop a program in restoration ecology;
- Barry Goldfarb (1993) to initiate a new program in rooted cutting physiology and technology;
- Craig McKinley (1994) to manage an extension program and genetic improvement research in Christmas trees;
- Gary R. Hodge (1995) to the CAMCORE program;
- Bailian Li (1995) in the Tree Improvement Cooperative;
- George R. Hess (1996) with expertise in modeling and biometry;
- Robert E. Bardon (1996) in extension silviculture and forest management;
- Daniel J. Robison (1997) to direct the Hardwood Management Cooperative;
- Erin O. Sills (1997) to expand programs in economics and international forestry;
- Christopher E. Moorman (1999) in extension wildlife management;
- Susan E. Moore (2000), following several short term appointments of other persons, to manage the Forestry Educational Outreach Program (FEOP), the Department's new extension education effort;
- Teresa H. Litzenberger (2001), Elizabeth G. Nichols (2002), and Linda R. Taylor (2005) to augment teaching and research in the Department's newly-approved Environmental Technology Program;
- Toddi A. Steelman (2001) in forest policy and to expand Departmental research in the social dimensions of forestry;
- Bronson P. Bullock (2002) in biometrics and forest mensuration;

- Vincent L. Chaing (2002) in forest biotechnology;
 - Stacy A. C. Nelson (2002) in remote sensing;
 - Christopher S. DePerno (2004) extension wildlife management;
 - John S. King (2005) in tree physiology;
 - William E. Winner (2006) in nature-based tourism;
 - April L. James (2007) in hydrology;
 - M. Nils Peterson (2007) in wildlife management.
 - Jose Stape (2008) to teach silviculture and direct the Forest Nutrition Cooperative;
 - Melissa McHale (2009) to bring expertise in urban forestry
- A final important change in the faculty occurred when Laurens G. (Larry) Jervis retired as College Forest Manager in 2001 and was replaced the next year by Joseph L. Cox.

Mentioning these individuals and their areas of expertise in no way diminishes the importance of the other individuals who have been added to the faculty in the last 25 years in research tenure track positions and as research associates. They continue to make major contributions to the Department's long history of excellence in such core areas of forestry as silviculture and forest management, tree improvement, forest soils, mensuration, engineering, hydrology, and wildlife management as well as to the new, emerging areas developed in the Department during the last 30 years.

Although the integration of Forestry Extension and Fisheries and Wildlife faculties into the Department certainly contributed to the growth in size of the faculty, other factors have also been responsible. One of the most important of these has been the willingness of the College and Department administrations to utilize soft (non-appropriated) money from the industrial cooperatives and research grants to hire faculty members into tenure track positions. Most employees in the industrial cooperatives had, from the inception of these programs, been supported from industrial dues paid into the cooperatives. The individuals so hired were not given academic titles and were not subject to the protections of the University tenure code. Although there was no guarantee that these funds would continue to exist, the close working relationships that existed between the College and Department administrations and the industries generally assured that no changes would occur without substantial warning. Furthermore, decreases in hard (appropriated) State and Federal funds throughout the period made it clear that if the Department were to capitalize on opportunities to maintain its leadership in forestry teaching and research more extensive use had to be made of soft money.

During the early 1980s the Department began to apply "qualified" academic titles (e.g., "Research" Assistant Professor) to appointees hired with soft money. Although the use of such titles implied protection under the University tenure code, it was not clear that if the soft money funds disappeared, the employment commitment to the

individuals holding such appointments still existed. Although neither the College nor Department viewed these appointments as being overly risky, the University seemed to. In fact, during a meeting with the then Chancellor Bruce R. Poulton, in the mid-1980s, Poulton pointedly brought to the Dean and Department Head's attention the fact that they had 5-6 equivalent faculty positions supported by soft money for which they had no appropriated money backing and that, if the soft money disappeared, the College could not count on support from the University. Although the warning was, of course, duly noted, the use of soft money appointments continued.

Over the subsequent years the use of soft money appointments has become more "institutionalized" at the University level. Tenure positions qualified by the word "research" (or by other qualifiers) are now in relatively common use and their limitations are clearly spelled out in the University tenure regulations. In fact, nearly a dozen current faculty members, including one full professor, now hold such positions in the Department. In retrospect, this willingness of the College and Department to "gamble" in the use of soft money positions was a major factor in the growth of the Department and in its ability to develop programs that are now crucial to its position as a leader in certain areas of forestry research. Without the judicious use of soft money appointments, it is likely that the Industry-University Cooperatives would not be as healthy as they now are and programs in biotechnology and rooted cuttings might well never have developed.

The Department has, on occasion, been criticized for having too many graduates of NC State on its faculty. Whether this is a problem is debatable. The facts are that of the 26 persons in all EPA (Exempt from Personnel Act) categories in 1980 exactly half either had gotten their highest degree from NC State or had transferred to the Department from another NC State department. In the intervening years 78 persons have been hired or promoted into all categories of EPA positions; 20 (25%) of these had their highest degree from NC State. Consequently, the Department now has 44 members in all EPA categories and 16 of these (36%) have their highest degree from an NC State department. Thus, the percentage of hires with NCSU degrees has declined somewhat; furthermore, of the 22 hires in the last 10 years only 4 have NCSU degrees. This change reflects both a conscious attempt by the Department to broaden the educational backgrounds of its members and the fact that most of the hires in the last 10 years have been in areas where the Department has not traditionally been strong. Before closing the book on this debate, it is important to note that a large number of the persons with NCSU degrees were hired to work in the research programs in which they had obtained their degrees. On the one hand, this leads to an obvious continuity in the work of the research program but on the other it can lead to the intellectual inbreeding that can reduce a program's imagination and creativity. The Department has experienced both of these outcomes in the last 30 years.

The Department has also made liberal use of joint, associate, and adjunct appointments. Joint appointments usually involve a sharing between two or more departments of a faculty member's salary (and occasionally support funds) whereas associate appointments involve appointment in two or more departments with a salary commitment only from the "home" department. Adjunct appointments involve the granting of faculty status and rank, with no commitment of funds, to an individual who is not a member of the NC State faculty, but whose interests and expertise parallel or augment those of the faculty. Although joint, associate, and adjunct appointments were not always consistent with these definitions in the 1980s, their use is now clearly spelled out in University regulations.

It can be argued that much of the success of the Department from its earliest days lay in the numerous joint and associate appointments it has made. For at least the last 50 years, the Department has, at one time or another, had joint or associate appointees from the Departments of Botany, Entomology, Genetics, Plant Pathology, Soil Science, Statistics, Wood and Paper Science, and Zoology. The individuals involved added significantly to the depth and breadth of the Department's programs, particularly in forest biology and they often taught courses that were critical parts of the undergraduate and graduate forestry programs. Often the willingness of sister departments in the university to grant joint or associate status attracted a faculty member to the Department or allowed development of close working relationships in areas of research. Perhaps the best example lies in the long-standing relationship between the Department, the Department of Genetics, and the Tree Improvement Program. Gene Namkoong, a U. S. Forest Service Pioneering Scientist located in the Department of Genetics contributed mightily to the intellectual development of many graduate students in tree improvement as well as making contributions of his own that established him as one of the world's leading theoreticians in forest genetics. L. C. (Bud) Saylor began his career as a forest genetics graduate student in the Department of Genetics and early on moved to a distinguished career as Assistant and Associate Dean of the College. Another important example was the willingness of the Department of Electrical Engineering to accept Siamak Khorram as an associate faculty member. This associate appointment not only helped convince Khorram to come to NC State, but also led to his appointment as Director of the Computer Graphics Program in Electrical Engineering and, ultimately, to the program's transfer to the Department of Forestry.

To say that the Department made liberal use of its ability to make adjunct appointments is putting it mildly. Adjunct appointments came from industry, the U. S. Forest Service, the U. S. Fish and Wildlife Service, the State Forest Service, consulting foresters, and other universities to name the most frequent sources. Although the motivation was usually to obtain additional technical expertise, appointments were occasionally made for political or other, often obscure, reasons. At any one point in time the Department usually had at least 40 adjunct appointees. Occasionally the list had to be

purged to eliminate persons whose expertise no longer related significantly to the Department's work, who may have left the region, or who, in the most egregious cases, had died! Despite the fact that the number of adjunct faculty in the Department occasionally grew bloated and was not guided by any clearly-defined rules, the ability to tap the expertise of such individuals by offering them a formal affiliation with the faculty contributed enormously not only to the Department's programs but also to enhanced relationships with constituencies in the forestry sector generally. A full review of all adjunct appointments was carried out during 2006-07 and ground rules were established for their appointment and re-appointment. As a consequence the Department now (2008) has 41 adjunct appointments with two more pending approval.

Over the past 25 years, the faculty of the Department have received many honors and recognitions. Although a full listing of these is shown in Appendix 2, the more significant of these deserve mention here.

There is no other Department of Forestry in the United States with one, let alone two members of the National Academy of Science on its faculty. Ellis B. Cowling had received this honor in 1973 and Ron Sederoff was elected to membership in 1995. Likewise, there is no other Forestry faculty in the country in which members have won all three major awards of the Society of American Foresters within the past 30 years. Bruce Zobel received the Sir William Schlich Medal in 1988 (Dean Richard J. Preston had won this award in 1972), Art Cooper received the Gifford Pinchot Medal in 1999, and Chuck Davey (1982), Bob Kellison (1997), and Ellis Cowling (2000) received the Barrington Moore Award (Bruce Zobel had received it in 1968).

Ellis Cowling also won The University of North Carolina's highest honor, the O. Max Gardner award, for 1981. Bruce Zobel had also won this award in 1972. Art Cooper (1998), Ellis Cowling (2001), Bruce Zobel (2004), and H. Lee Allen (2007) received NC State's Alexander Quarles Holladay Medal.

Members of the faculty were presidents of several scientific societies. Chuck Davey served as President of the Soil Science Society of America in 1976, the only forester up to that time to head that society. Art Cooper was president of the Ecological Society of America for 1980-81 and of the North Carolina Academy of Science in 1979. Dick Lancia served as president of The Wildlife Society in 2005 and Siamak Khorram was president of the World Space Center in 1981.

A number of faculty members were named Fellows of the Society of American Foresters during the last 25 years, including: Ralph Bryant

(1979), Art Cooper (1986), Larry W. Tombaugh (1987), Bob Kellison (1995), Fred Cabbage (1996), and Chuck Davey (2004).³

Forestry faculty members have been active in campus governance in a variety of capacities. Since 1980 the following have served as members of the Faculty Senate: Tom Gemmer (1980-1982), Awatif Hassan (1984-1988), Dave Adams (1987-1989), Joe Roise (1988-1990), Bob Weir (1990-1994), Anne Stomp (1994-1996), Gary Blank (1996-1997, 2004-2006), and Gary Hodge (1999-2003). From 1996-97 Dick Lancia served as Interim Director of the Center for Teaching Excellence. Art Cooper served as Chair of the Council on Athletics and as University Faculty Athletics Representative from 1990-2001 as well as an Atlantic Coast Conference representative to the NCAA from 1995-2001; Bob Weir and Gary Hodge represented the Faculty Senate on the Council. Russ Lea, after 5 years as Associate Dean for Research in the College moved on to become Associate Vice Chancellor for Research in 1996 and ultimately, from 2001-2007, served as Vice President for Research and Sponsored Programs in the UNC General Administration. In 1997 Ed Jones moved into Extension administration as Associate State Leader for Natural Resources and Community Rural Development. Most recently, in 2006, Bailian Li was named Interim Vice Provost for International Affairs. This appointment became permanent in March 2007.

A full recounting of the publication record of all faculty members here would be impossible. However, mention must be made of the many books and other volumes that faculty members have written or edited. These publications are included in Appendix 3.

No discussion of the Department's faculty over the last 25 years would be truly complete without mention of the two women, Judy Rogers and Eileen Broderick, who served as Administrative Assistants to the Department Head during that time and who kept them and the Department running smoothly. Both women showed an uncommon devotion to the Department and an uncanny ability to deal with the administrative minutia now inflicted on a modern academic department. Despite the fact that she retired officially in the mid-1990s, Ms. Rogers continues to work part-time in the Department today. Without these two women the Department would never have functioned, let alone functioned as smoothly as it has.

³ Jack Duffield (1959), Dick Preston (1965), Waldy Maki (1969), and Bruce Zobel (1969) had been named in prior years. Eric L. Ellwood (1985) was also so honored.