

A HISTORY OF THE GRADUATE PROGRAM IN ECOLOGY
AT THE UNIVERSITY OF TENNESSEE, KNOXVILLE

Compiled by Louis J. Gross
Associate Professor of Mathematics and Ecology
June 1987

The below is intended to be a brief compilation of the development of the Graduate Program in Ecology at UTK, with emphasis on how the Program was initiated. I make no attempt to provide detailed quantitative analyses of the changes in the Program through it's history, but merely aim to provide a synopsis of it's growth. The below is based mainly upon a few documents available about the Program, including the original proposal for it's establishment, the outside review of the Program carried out in 1980, and a variety of papers available summarizing student admissions and degrees awarded over the years.

Much of the comments regarding early history of the Program are gleaned from a set of interviews conducted by Pam Doyle, Manager of Radio Services for WUOT-FM, with the following individuals:

Dr. Frank McCormick, former Director of the Program

Dr. James Tanner, first Director of the Program

Dr. Stanley Auerbach, former Director of the Environmental Sciences Division, ORNL

Dr. Michael Pelton, Professor of Forestry, Wildlife and Fisheries

Dr. Henry Fribourg, Professor of Plant and Soil Science.

Each of these individuals has had a long association with the Program and it was thought an oral history from each of them would be an appropriate starting point for this project. The interviews are on reel-to-reel tapes, were edited for airing on WUOT, and the raw tapes are being placed in the non-print division of the UTK Library, along with a copy of this report. Attached as Appendix A to this report is a set of questions which served as the basis for each of the interviews. Attached as Appendix B are partial transcripts of the tapes, with emphasis on the more historically oriented remarks. These transcripts are not verbatim, but edited to provide the sense of the remarks.

The Initiation of the Program

The genesis of the Program began far before it formally started in 1969, and much of this revolves around happenings at ORNL. Dr. Auerbach came to Oak Ridge in the mid 1950's specifically to set up an Ecology Division and along with work in radioecology, began an emphasis at ORNL on application of systems theory to ecology. This led to the hiring of George Van Dyne, Bernard Patten, and Jerry Olsen, who eventually were allowed to teach a year-long course on systems ecology at UT. This course ran from 1964-67, by which time it had become evident that a more formalized program was needed to accomodate the graduate students who had joined in to work in this area. At this time also, under the auspices of a Ford Foundation grant, several staff members at ORNL were teaching part-time at UT (among them, Jerry Olsen and Henry Shugart were later associated with the Program).

The spark which started the initial deliberations to set up the Program, was a meeting held sometime in 1967 with Drs. Auerbach and Reichle from ORNL, Dr. Tanner of Zoology, and then Vice-Chancellor Walter Herndon. This led to much discussion as to the form the Program should take, with Deans Nielson and Smith being opposed to setting up any kind of separate institute, and the various department heads not being supportive of setting up a new department. Evidently a number of informal proposals were made until something which was acceptable to everybody involved was worked out. What evolved out of all the discussion was a truly interdisciplinary, intercollegiate Program, in which any faculty member who had any relation to ecology could participate in the teaching and direction of graduate students in the Program.

The formal initial proposal included faculty members in the Departments of Botany and Zoology and Entomology in the College of Liberal Arts, and Horticulture, Forestry, Agronomy, and Agricultural Biology in the College of Agriculture. The initial list of courses included some in all the above listed departments as well as some in Geology and Geography. The only new course proposed, in addition to thesis and dissertation hours, was the year-long Principles of Ecology sequence. As Dr. McCormick points out, this was the first program in the nation to offer graduate degrees in ecological science.

The Initial Years

The Program began in January of 1969. At some time previous to that, after an interview process, the new position of Director of the Program was offered to a distinguished British ecologist, and he accepted. Unfortunately, he never showed up to take the position, and Dr. James Tanner of the Zoology Department became the acting Director until another appropriate Director could be found. There were 14 students who applied to the Program in 1969, all of whom were accepted.

Dr. Frank McCormick held the position of Director of the Program from 1972 until 1981. By the time of his arrival, the Program was running well, with 16 new students entering the Program in 1970 and 14 in 1971. The first students to complete Masters degrees in the Program were in 1971 and there were 2 Ph.D.'s awarded in 1972. The initial proposal for the Program included the names of 28 faculty members who would be associated with it. In addition, there were several adjunct appointments of staff from ORNL made in the first few years. This established a pattern held throughout the history of the Program. Individual faculty from any department may apply to be associated with the Program with the approval of their department head, as well as individuals from ORNL, TVA, and the GSMNP who wish to obtain adjunct status.

Subsequent Development

The Program continued to grow under the leadership of Dr. McCormick. The number of applicants increased from about 20 per year in the first few years to approximately 70 per year by the end of the

decade, with about 40 new students being admitted each year by this time. Approximately 100 students had completed degrees in the Program by 1980, with about 35 of these being Ph.D.'s.

There was attendant broadening of the faculty associated with the Program also. In addition to the departments listed above, by 1980 there were associated faculty in Psychology, Mathematics, Geology, Geography, several engineering departments, Microbiology, and Anthropology. The 1979 pamphlet describing the Program lists 40 UTK faculty members associated with it, as well as 12 adjunct faculty, mainly from ORNL. At some point, it had become possible for faculty to be partially supported through the Program, so that by 1980 there were several faculty, mainly in Zoology and Botany, who were formally supported up to 1/3 time through the Program. The number of associated faculty has continued to increase - there are currently about 50 on-campus and 30 adjunct faculty.

The areas of emphasis of the Program have also become quite diverse. Those specifically mentioned by the individuals interviewed include: large mammal wildlife ecology, radioecology, systems ecology, mathematical ecology, and microbial ecology. It should be clear however that the Program as it was initially envisioned, and as it subsequently developed, is extremely broad. It encompasses essentially every area that could be included as part of the modern science of ecology.

Perhaps because of the great diversity that it includes, the problem of identification as ecologists was enunciated very strongly by the outside reviewers of the Program in 1980. They attributed this to lack of a central facility, the budget-splitting of salary money, and the tension between research and the degree granting goals of the Program. To some extent these problems have been alleviated under the recent tenure of Dr. Dewey Bunting as Director of the Program. In particular, the appointment of two associate directors, one each from the main and the agriculture campuses, as of 1986 has increased communication between the diverse faculty associated with the Program.

While the Program has grown tremendously since its inception, and indeed this is a testimony to the careful planning and organizational work done by the founders of the Program, there is certainly much that remains to be done. With the addition to campus of a new facility for science and engineering, in which ecology may have a central location, some of the current space and identification problems may disappear. However, as Dr. Tanner points out in his interview, the Program has yet to establish itself as preeminent in some area of modern ecology, though it currently is certainly one of the strongest all around programs in the country.