

2003 Annual Report

Extension Faculty
University of Tennessee
Department of Forestry, Wildlife and Fisheries

Faculty Members:

Dr. George Hopper, Professor and Department Head
Dr. Thomas Hill, Professor, Fisheries
Dr. Wayne Clatterbuck, Associate Professor, Forestry
Dr. Craig Harper, Assistant Professor, Wildlife
Mr. Larry Tankersley, Extension Specialist II, Forestry
Mr. David Mercker, Extension Specialist II, Forestry
Mr. Sam Jackson, Coordinator, Forestry

Vacancies:

Assistant Professor, Forest Products
Extension Specialist I, Wildlife

Introduction:

The Extension Department within the University of Tennessee Department of Forestry, Wildlife, and Fisheries helps citizens improve their lives by providing research-based educational programs and resources through a network of on-campus and local Extension offices and educators. We seek to support the Department's mission of advancing the science, management, and appreciation of natural resources in Tennessee, the region, and beyond through programs in teaching, research, and extension.

In 2003, Extension Faculty were effective in: the development and delivery of programs, public service, publishing both technical and newsletter press, improving internet activities, service to professional affiliates, team contribution and obtaining grants to fund programs. The faculty members are developing a reliable reputation both within Tennessee and regionally for expertise in their respective fields.

Priority Programs:

The Extension Faculty are expected to evaluate natural resource needs and issues, and from these, develop quality programs focused on improving societal and environmental conditions. In 2003, faculty chose to focus on 28 different priority programs. Those programs and a brief statement for each are given:

1. **Master Wildlifer Program** – 7 night video short course, coordinating 5 sites across the state.
2. **Forest Stewardship** - quarterly newsletter reaching thousands of forest landowners with a message of responsible forest guardianship.
3. **Aquaculture** - informs landowners on methods of improving profitability of intensively managed prawns.
4. **County Forestry Associations** - provides a platform to connect forest landowners with natural resource professionals in order that quality educational programs can be delivered.

5. **Master Logger Program** - both initial certification and continuing educational programs on silviculture and business are delivered to this small, yet vitally important audience.
6. **Timber Taxes** - Advises landowners on means to protect timber income through tax minimization.
7. **Forested Wetlands Restoration** – initiated 128 acre afforestation project including 51,000 seedlings at the WTAES.
8. **National Web-based Learning Center for Nonfederal Forest and Range lands** - housing and administering a national interactive web site which serves as a clearing-center for landowner forestry information.
9. **Arbiculture/Urban Forestry** - addresses the needs of the sizable homeowner audience with techniques for establishment and maintenance of urban trees.
10. **Continuing Education for Natural Resource Professionals** - keeping professionals abreast of current research and techniques; includes the Tennessee Forestry Academy.
11. **Native Warm Season Grasses for Wildlife** - replacing traditional fescue with NWSG, improves early successional habitat (nesting sites) for quail, rabbits and songbirds.
12. **Forest*A*Syst** - Guides landowners in establishing their forest ownership objectives and minimizing nonpoint source water pollution in silvicultural operations.
13. **Quality Deer Management** - seeks to balance sex ratio of deer herds and develop healthy trophy bucks.
14. **Managing Farm Ponds for Food, Recreation and Income** - relieving fishing pressure on public lands by educating owners of privately owned farm ponds.
15. **Trees for Tennessee Landscapes** – publication series educating homeowners on procedures for planting and maintaining trees in urban settings.
16. **Food Plots for Wildlife** - a simple way for landowners to attract and maintain game wildlife on their property.
17. **Southern Pine Beetle Project** – manage SPB webpage for information dissemination to private landowners and natural resource managers.

18. **Teacher’s Conservation Workshop** - provides natural resource instruction to teachers, dispelling traditional myths and replacing it with research-based knowledge.
19. **4-H Forestry** - reaching youth through the County Extension delivery system.
20. **Petition for Natural Resource Students** – delivering presentations to high schools to promote careers in natural resource management.
21. **Forest Demonstration Project** – developing public demonstration for harvest methods of Tennessee timber.
22. **Best Management Practices Implementation Study** - protecting soil and water resources during silvicultural operations.
23. **Quality Early Successional Habitat** – conservation project to promote proper vegetational succession.
24. **4-H Wildlife Project** - reaching youth through the County Extension delivery system.
25. **Firewise** – educating homeowners about the protection of their home property from wildfire.
26. **Ecology and Management of Ruffed Grouse** – cooperative study with three agencies on grouse management in the Southern Appalachians.
27. **Silviculture for Southern Hardwoods** – prescription to enhance wildlife habitat, sponsored by the National Wild Turkey Federation.
28. **Interactive Extension Videos** – creation of taped videos on timber sales, contracts and taxes were created and placed on the FWF Extension Website.

Summary of Extension Programs

Within these 28 priority areas, Extension Faculty delivered a total of 140 public programs in 2003 directly teaching 5,592 individuals, for an average of 40 participants per program. A categorical breakdown of the participants, the acreage impacted and the estimated economic impact follows:

Participant Category	No. of Programs	No. of Participants	Acres Impacted
Landowners	54	2,405	493,244
Resource Professionals	15	548	543,392
Loggers	17	450	117,039
Homeowners	12	431	832
Inservice - Agents	3	75	45,000
Wood Industry	2	6	20,000
4-H and Youth	22	1,397	10,000
Other	15	292	-
TOTAL	140	5,592	1,220,507

Estimated Economic Impact

Extension faculty programs reached 1,220,507 acres of forested, wildlife or aquatic land in 2003. Emphasis of these programs was to:

- improve productivity of forests,
- generate additional revenues through prawn production, hunting leases and habitat enhancement,
- save on income taxes from the sale of timber,
- minimize expenses through unnecessary, improper logging techniques, and
- protect future timber resources through proper logging techniques,

Assuming that the average acre of land included in these programs has a fair market value of \$600 per acre, and that a minimal 1% improvement in land values resulted from these programs, Extension faculty had a total economic impact of generating, saving or increasing the value of, \$7,323,042 in 2003. These impacts reached beyond Tennessee, regionally and nationally.

Publications

Publishing is an integral part of Extension Faculty responsibilities. The largest audience is the public whom are reached through popular press, newsletters and Update articles. Additionally, bulletins, trade journal and refereed articles are published to benefit professionals and peers. In 2003, Extension faculty produced an average of 33 publications per faculty member, totaling 200. They are summarized as follows:

Refereed articles	=	2
Bulletins	=	15
Popular press, trade, newsletters	=	58
FWF Update Articles	=	99
Other	=	4
<u>Abstracts</u>	=	<u>22</u>
Total	=	200

Funding

Grants and contracts, both new and ongoing, totaled \$1,231,144, for an average of nearly \$205,191 per faculty member. Some of the grants are in partnership with teaching and research faculty.

Internet Activities

Continued the National Web-based Learning Center
Continued Southern Pine Beetle webpage
Continued FWF Extension webpage
Developed interactive Extension Forestry videos

Professional Development

Faculty attended 43 professional development programs in 2003.

Honors and Awards

Extension Faculty received considerable recognition for outstanding service or products in 2003. Among these include:

- Tennessee Extension Distinguished Service Award – TAAA&S
- 25 Years Service Award – UTIA
- Distinguished Service Award – National Association of County Ag. Agents
- Specialist of the Year, Cumberland District TAAA&S
- Southern Extension Forest Resource Awards for:
 - Exceptional Programming in the Area of Proceedings Paper
 - Exceptional Programming in the Area of Extension Publications
 - Exceptional Programming in the Area of Youth and Teacher Programming
 - Exceptional Programming in the Area of Professional Service
- Outstanding Student Paper Award – Tn. Wildlife Society
- Election as Fellow into the Society of American Foresters
- Forest Resource Award, Tennessee Forestry Association
- Society of American Foresters Outstanding Service Award

Abbreviated Impact Statements of 2003 FWF Extension Programs

The Department continues developing a comprehensive online national web-based learning center for nonfederal forest and rangelands. In 2003, forty-four preproposals were submitted via online submission involving 77 individuals from 32 institutions around the nation. Over \$200,000 has been granted for content development for module development.

Timber tax training was provided at workshops in Knoxville, Nashville and Jackson. Those in attendance indicated that they expected to save a minimum of \$1000 tax benefits from the workshop. The attendees of the workshops were mostly professional tax preparers, each reaching an additional 60 persons per year.

The Master Logger Program graduated 80 loggers in 2003 and had an additional 532 participants in the continuing education of existing Master Loggers.

Five additional County Forestry Associations were added in 2003, bringing the State total to 26. Over 1,500 private forest landowners are now members of local CFAs, owning 600,000 acres of forestland.

Over 17,400 Tennessee youth participated in the 4-H Wildlife Project making it the sixth largest 4-H project in the state. Wildlife judging teams have placed in the top five in the nation each of the past three years. In addition, 2,700 4-H'ers have participated in the FACE contest over the past four years, planting food plots and improving wildlife habitat over more than 40,000 acres.

Research-demonstrated prawn ponds at the Highland Rim Experiment Station have for the past three years yielded 1,000, 1,250 and 1,300 pounds per acre, respectively. In contrast, producers average less than 600 pounds per acre. Four workshops were conducted to help producers gain knowledge and better manager their prawn enterprises.

Landowners participating in a cooperative educational effort with NRCS and TWRA established 9,000 acres of NWSG in 2003 and indicated bobwhite quail populations increased by 100% and rabbit populations

increased by an average of 300%. Further forage production for producers averaged over 10,000 pounds of quality forage per acre.

Professional foresters and resource managers need information updates on changing technologies. In 2003, 2,190 contact hours of instruction for 105 participants in Tennessee and Kentucky took place.

A public “Forested Wetland Restoration Demonstration Area” was initiated at the West Tennessee Agricultural Experiment Station in Jackson. A 120 acre wetland row crop field is being restored by planting 51,000 native hardwood tree seedlings.

130 participants learned about native warm season grasses through seven seminars at three UTIA Experiment Stations. Producers tallied NWSG hay production and wildlife census.

A “Site Evaluation” event was added to the 4-H Forestry judging contest in 2003, allowing students to comprehensively evaluate a forested site and develop a forest management prescription.

Over 60 samples of aquatic weeds and diseased fish were received and diagnosed via electronic photos in 2003. In addition, 200 landowners contacted the fisheries with fisheries questions. Twenty-one articles on the subject were contributed reaching 5,100 readers per issue.

Eight additional publications in the “Trees for Tennessee Landscapes Publication Series” were developed in 2003, bringing the total to thirty-five.

Research on quality deer management continues at the Ames Plantation. Two years of pretreatment data have been collected.

A petition for Natural Resource Students was initiated, reaching 211 high school juniors and seniors; Twenty-three students indicated a strong interest in natural resources.

Thirty-five teachers attended a week long “Teachers Conservation Workshop” whom annually educate 700 school children on forest conservation issues.

Collectively in 2003, the FWF Extension Faculty held 140 educational programs, reaching 5,592 individuals, owning or assisting in managing 1,220,507 million acres of land.

Members of County Forestry Associations planted 653,000 tree seedlings and harvested 14,400 acres of forestland, generating \$9million of revenue to Association members.

Pre-and post-test scores of 149 youth who participated in the Jr. High Wildlife Conference in 2003 showed an increase in knowledge of 45% concerning issues related to wildlife ecology and management.

A timber Sale Video Program was developed for the web and stand alone module for Extension personnel. The video included instruction on the process of a sale, contracts, and taxes.

A research/extension project to determine silvicultural practices that can be used within streamside management zones (SMZ) was initiated at the Ames Plantation. Four harvesting treatments will be examined.

Research continued on the nesting ecology, habitat use, home range, and mortality of ruffed grouse in the southern Appalachians.