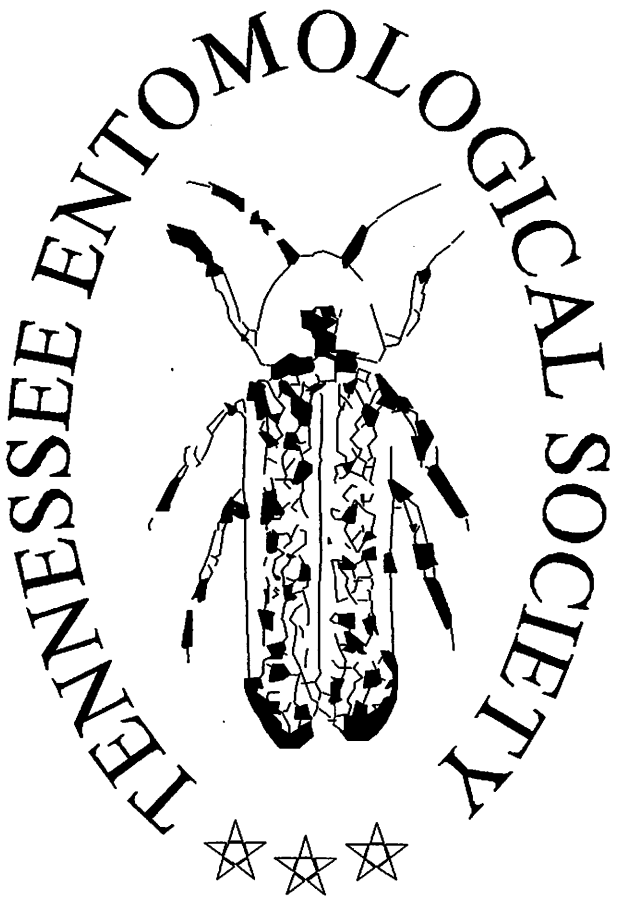
THE FIREFLY

PROCEEDINGS OF THE 2001 (TWENTY-EIGHTH)
ANNUAL MEETING OF THE
TENNESSEE ENTOMOLOGICAL SOCIETY



OCTOBER 12-13, 2001
SUNDQUIST SCIENCE COMPLEX
CLARKSVILLE, TENNESSEE

Volume Sixteen

TABLE OF CONTENTS

RICHARD E. CARON

OUTSTANDING ENTOMOLOGIST AWARD

NOMINATION FORM

The Awards Committee of the Tennessee Entomological Society invites nominations from any TES member for the Richard E. Caron Outstanding Entomologist Award. The award is awarded periodically to TES members who have distinguished themselves by making outstanding contributions to entomology in Tennessee.

Name of Nominee_____

Brief Description of His/Her Qualifications for the Award

_____

_____

_____

_____

_____

_____

Name of Nominator _____

Phone Number of Nominee: Area Code ( )_____

Please submit your nomination by **August 1, 2003** to:

Dr. Karen M. Vail
Department of Entomology and Plant Pathology
The University of Tennessee, Knoxville, TN 37901-1071
FAX (865) 974-4744
kvail@utk.edu

PROCEEDINGS OF THE TWENTY-EIGHT ANNUAL MEETING OCTOBER 12-13, 2001

Sundquist Science Complex
Austin Peay State University
Clarksville, Tennessee

AQUATIC ENTOMOLOGY IN EAST ASIA

Dr. John C. Morse
Department of Entomology
Clemson University, Clemson, South Carolina

A brief synopsis by Steve Hamilton:

In the 1950's and early 60's, Dr. Fernand Schmid, a Swiss trichopterologist investigated the caddisflies of the southern Himalayas. He described many new species and suggested that the region was the center of diversity for the World Trichoptera fauna. With the encouragement of his uncle, Dr. Henry Townes, Dr. Morse began studying caddisflies in the late 1960's. He was excited by the reports and speculations of Dr. Schmid and began to dream of continuing those investigations in the northern Himalayas and southeastern China.

In the 1980's Dr. Morse began to correspond with Dr. Tian Lixin of Nanjing Agricultural University, who had an interest in Chinese caddisflies. While Dr. Tian was considered too old (by the PRC government) to travel to the U.S. to study with Dr. Morse, it did approve an extended visit by his protégée Yang Lianfang. Ms. Yang brought many specimens from China to study under the guidance of Dr. Morse. This collaboration proved very exciting and resulted in the discovery and description of many new species of long-horn caddisflies (family Leptoceridae).

A SURVEY OF ADULT TRICHOPTERA FROM SEVERAL TRIBUTARIES OF SULPHUR FORK CREEK AND RED RIVER, ROBERTSON COUNTY, TENNESSEE

Ken J. Davenport* and Steven W. Hamilton
Austin Peay State University, Clarksville, Tennessee

Caddisflies (order Trichoptera), an order of insects related to moth and butterflies, are an important part of the food web in freshwater environments and the larvae are used as bioindicators in the assessment of water quality. Adult caddisflies were sampled from Brush, Miller, and Buzzard creeks in Robertson County, Tennessee from May 1999 to April 2001. Brush Creek is a third order and Miller Creek is a fourth order tributary of Sulphur Fork Creek. Buzzard Creek is a third order tributary of Red River. These streams are located in the Western Pennyroyal Karst ecoregion of the Interior Plateau. Adults were collected using ultraviolet light traps and males were identified to species. A total of 13 families, 33 genera and 63 species have been identified to date. At least two new state records and several new county records are included. Based on published checklists of Tennessee and Kentucky caddisfly fauna and the preliminary data thus far obtained, this poorly surveyed area appears to have a moderately rich trichopteran fauna typical of this region.

ARMYWORM UPDATE ON PASTURES AND WHEAT IN TENNESSEE FOR 2001 AN UNEXPECTED OUTBREAK

Charles Patrick
Department of Entomology and Plant Pathology
The University of Tennessee, Knoxville TN 37901-1071

Armyworms caused many problems this season in pastures, wheat and other crops. In many instances there were as many as 20 to 20 worms per square yard causing serious damage to these crops. The use of Confirm in pastures(a section 18c) controlled the worms in all cases where it was used. Outlook for the 2002 season is uncertain but problems can be expected if dry conditions exist. As always it will be very important for producers to be aware of these pests and to check their fields for signs if any alerts are issued. We will be trying for a Section 18 with Tracer in 2002 for control of armyworms. This product is a very good material at only one ounce per acre.

COMPARING FORMIC ACID APPLICATION METHODS FOR VARROA MITE MANAGEMENT

John A. Skinner, J. Patrick Parkman and Michael D. Studer
Department of Entomology and Plant Pathology
The University of Tennessee, Knoxville, TN 37901

ABSTRACT NOT AVAILABLE

MOSQUITOES OF GRAND TETON NATIONAL PARK TETON COUNTY, WYOMING, USA

James P. Moore
Vector Science Consortium
PO Box 721, Omaha, NE 68101-0721

An inventory of the mosquitoes of Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway was conducted during 1998 and 2000. Twenty-five culicid species belonging to 3 genera and 5 subgenera were recorded. This is the first substantive effort to record the mosquito fauna of this National Park since its establishment in 1929. Collection of *Ochlerotatus communis* and specimens from the same larval site supports the species status of *Oc. nevadensis.*

THE EMERGENCE OF STINK BUGS AS CROP PESTS IN TENNESSEE

Gary L. Lentz
Department of Entomology and Plant Pathology
The University of Tennessee
West Tennessee Experiment Station, Jackson, TN

Three species of stink bugs may be found as pests of crops in West Tennessee. The more common ones are the green stink bug, *Acrosternum hilare,* and the brown stink bug, *Euschistus servus*. Only rarely has the southern green stink bug, *Nezara viridula,* been found in Tennessee. Oftentimes, the predatory stink bug, also called the spined soldier bug, *Podisus maculiventris*, may be confused with the brown stink bug. It is readily distinguished from the brown stink bug by the presence of sharp spines on the pronotum and the fact the beak is very stout. The transgenic Bt cotton that contains the gene from the bacterium, *Bacillus thuringiensis,* was released commercially in 1996. *Bacillus* thuringiensis, when consumed by selected caterpillar species, releases a protein that paralyzes the gut of the target insect causing it to starve to death. Prior to the introduction of Bt cotton, stink bugs were only occasionally found in cotton. Since Bt cotton has been introduced, the number of sprays to control crop pests, especially the bollworm and the tobacco budworm, has been reduced significantly. Boll weevil eradication has progressed to the point that there are fewer acres of cotton that regularly receive insecticide applications. Before the boll weevil eradication program began, cotton producers had to spray up to 15 times during the season to control the weevil. During the 2001 season, only about 25% of the cotton acreage had to be sprayed for weevil and even this with limited number of sprays. With further reductions of insecticide sprays to control crop pests, insects that were once considered secondary pests have now risen to primary pest status. One such group is the stink bug complex. During the 2001 season, producers were plagued with outbreaks of stink bugs. Losses were significant in both cotton and soybeans.

UPDATE ON GYPSY MOTH AND IMPORTED FIRE ANT IN TENNESSEE

Steve Powell
Tennessee Department of Agriculture

The Gypsy Moth was first introduced in the United States in 1869 in Medford, Massachusetts for possible silk production. After it escaped into the environment, it became established and spread into the Northeast and Midwest, causing defoliation on a large scale with isolated, artificial (man-aided) introductions and infestations in other parts of the United States as well as Canada. While the Gypsy Moth "front" has not yet reached Tennessee, there is a significant artificial infestation in Campbell County that will require an aerial spray eradication project. Over 6700 moths were caught statewide in 2001, with most of these being in Campbell County. There are known infestations in the

following counties: Campbell, Cumberland, Monroe, Scott, and Sevier. New county records for Gypsy Moth in 2001 include the following counties: Carroll, Hancock, Hardin, Hawkins, and Jackson.

Imported Fire Ants, first introduced accidentally in the Mobile, Alabama area in the early 1900's, are a major Agricultural and Human Health Pest. The first known artificial infestation in Tennessee was in Shelby County in 1948. The first established populations in Tennessee were found in Hardin County in 1987. All or a portion of 29 counties in Tennessee are under the Imported Fire Ant Quarantine. New areas to the Imported Fire Ant Quarantine were added in 2001 in the following counties: Franklin, Henderson, Maury, and Moore.

COMMON TREE BORERS IN TENNESSEE

Frank A. Hale
Department of Entomology and Plant Pathology
Agricultural Extension Service, University of Tennessee

The tree borers are particularly important nursery and landscape pests. Borer damage can dramatically lower tree value and even cause tree death. The types of borers discussed were the roundheaded borers (longhorned beetles), the flatheaded borers (metallic wood-boring beetles), the clearwing moth borers, bark beetles, ambrosia beetles and pyralid moth borers. The susceptibility of trees to many borers is related to plant stress. The summer drought conditions that can commonly occur in Tennessee can often predispose trees to successful attack by borers. Roundheaded borers, in general, attack trees that are already in decline. Flatheaded borers are one of our most important pests in the nursery and landscape. Newly planted trees are particularly susceptible to flatheaded borer attack. Clearwing moth borers such as the banded ash clearwing have been particularly damaging recently to newly planted ash trees. The southern bark beetle has been having one of its most devastating and far reaching outbreaks to date. The Asian ambrosia beetle is an introduced pest that primarily attacks trees in late winter or early spring, while the trees are still dormant. An ambrosial fungi is brought into the tree by the beetles and its growth within the galleries provides food for the developing brood. Infested trees often die from other pathogenic wilt fungi that enter the tree through the 1 mm diameter holes. The root collar borer and the American plum borer are pyralid moth borers. Their damage to the trunk is also an entryway for pathogenic wilt fungi.

ASIAN WOOLLY HACKBERRY APHID, *SHIVAPHIS CELTI* DAS, A NEW PEST OF HACKBERRY AND SUGARBERRY IN TENNESSEE

David L. Cook and Frank A. Hale
Department of Entomology and Plant Pathology
Agricultural Extension Service, University of Tennessee

The Asian woolly hackberry aphid (*Shivapis celti* Das), an introduced pest of *Celtis* spp., was first detected in Georgia, Florida, and Alabama in 1996, 1997 and 1997, respectively. In September and October 2001, this pest was detected on both hackberry (*Celtis occidentalis* L.) and sugarberry (*Celtis laevigata* Willd.) in nine counties within Tennessee including the southern Middle Tennessee counties of Maury, Lincoln, Giles, Moore, Marion, Bradley, Meigs and Hamilton and an outlying sighting in Lake County (northwestern most county of the state).

S. celti exudes bluish white waxy filaments from wax glands on the abdomen giving it a cotton candy, cottony or woolly appearance. Since winged forms occur, the tiny cottony insects are often detected as they slowly fly near infested areas. *S. celti* also produces copious amounts of sticky honeydew that covers the leaves, branches, and tree trunk and can often drip to the ground below. Sooty mold fungi grow on this sugary honeydew substrate. The sooty mold can blacken the entire tree and any items (i.e., outdoor furniture and toys) found beneath the tree. While considered a nuisance pest, this aphid does not appear to cause any long term damage to the trees.

This aphid was found primarily in rural areas of Tennessee. As this aphid expands its range into urban areas, it has the potential to become a significant nuisance pest. Future observations will be made to document the spread of this pest in Tennessee.

Like most introduced pests, *S. celti* does not have its full compliment of natural enemies to help regulate its populations. However, the multicolored Asian lady beetle, *Harmonia axyridis* (Pallas), which is another introduced insect, has been found in trees infested with *S. celti*.

2001 UPDATE OF THE SMALL HIVE BEETLE (*AETHINA TUMIDA*) IN TENNESSEE

Ray McDonnell
Tennessee Department of Agriculture
Regulatory Services

In 1998 the Small Hive Beetle (*Aethina tumida* Murray) were discovered destroying honey bee colonies in Florida and identified. This beetle is a member of the coleopteran family Nitidulidae commonly known as sap beetles. This beetle is native to tropical and subtropical

regions of South Africa where it it is a minor pest of honey bee colonies. Specimens submitted prior to 1998 in South Carolina were only identified to family.

The small hive beetle is brown to black, 5 to 7mm in length and infests honey bee colonies. The adult beetles and also the larvae feed on honey and pollen. Female beetles lay eggs in irregular clusters in crevices within the hive. The larvae damage the colony combs as they forage. Honey leaking from combs ferments and smells like fermenting oranges. The beetle larvae also defecate in the honey and produce a slime. If infestations are severe, the bees may abscond. From egg to adult can take from 38 to 81 days and 5 generations year are possible. Larvae leave the colony to pupate in the ground and may emerge after 3 to 4 weeks as adults. Females are capable of laying eggs 1 week after emergence.

Initial infestations of the small hive beetle were in Florida, Georgia, South Carolina, and North Carolina. Beetles have been spread through movement of colonies and package bees to several other states. The first report of the occurrence of the small hive beetle in Tennessee was in the fall of 2000 in Polk County. Three apiaries were found to contain the small hive beetle in a small area near Copper Hill.

After the initial discovery of the small hive beetle in Polk County, locations in two more Tennessee were found by the State Apiarist in 2001. Several apiaries were identified to have the small hive beetle in Hamilton County near Chattanooga and several apiaries were also identified in Dyer County near Dyersburg.

Treatments for the small hive beetle include coumaphos strips attached to cardboard placed on bottom boards of honey bee colonies; ground application of pesticides around colonies to kill pupating larvae; and lowering humidity and increasing air flow in honey houses to accomplish desiccation of small hive beetle eggs in stored supers.

BAITS OR BARRIERS - WHICH IS BETTER FOR ODOROUS HOUSE ANT MANAGEMENT?

Karen M. Vail, and Derek Bailey
Department of Entomology and Plant Pathology
The University of Tennessee, Knoxville, TN 37901-1071

Because many clientele are not home during the day, perimeter treatments are used by pest management professionals because they do not require access to the structure's interior and, thus, are easily and quickly applied. The objective of this study was to determine which treatment, perimeter baits, spray or a combination of bait and spray, would reduce outdoor and indoor OHA populations. To evaluate the effects of these applications, outdoor OHA populations were monitored twice before treatments were applied and at 1, 2, 4, 6, 8, 10, 12,

14 and 17 weeks after treatment. Residents were phoned after each monitoring to determine indoor ant presence. The perimeter spray of 0.06% fipronil (Termidor SC) was applied at 244 ml/m2 (6 gallons per 1000 sq. ft) to 1 ft. up and out from the foundation base. Two bait treatments were applied, one consisted of a 1.3% borax experimental liquid bait (Whitmire Micro-Gen) and the other was a triple bait of 5% orthoboric acid (Niban-FG), 1% hydramethylnon (Maxforce Fine Granule Insect Bait) and 2% borax (Terro Ant Killer II). All baits were placed in an Advance A.C.E. station and located on the ground against the structure. Baits were placed where greater than 10 ants were found on a monitoring card. A combination of the 0.06% fipronil perimeter spray and the 1.3% borax experimental liquid bait was applied as described above, except the bait was placed outside the spray zone to intercept ants coming from the landscape. Control structures received no treatment. By week 1, the bait and spray combination treatment reduced populations by greater than 94%. This level of control remained throughout the 17-week monitoring period. The spray alone reduced populations by 93% or greater at 4 weeks after treatment and throughout the remainder of the study. The bait and spray combination was never significantly different from the spray alone. The liquid bait reduced outdoor populations by 82% by week 4 and reductions were greater than 94% from weeks 10 - 17. In the triple bait treatment, population reductions did not reach 94% until week 14 when outdoor temperatures were beginning to drop and control population reductions occurred for the first time. The liquid bait and spray combination treatment was the most effective.

APPLICATION FOR PRECISION AGRICULTURE FOR COTTON IPM

Donald L. Sudbrink, Jr. [1], F. Aubrey Harris [1], Patrick J. English [1], and James Hanks[2]
[1]Mississippi State University
[2]USDA-ARS, Stoneville, MS

ABSTRACT NOT AVAILABLE

REGULATORY ISSUES RELATING TO JAPANESE BEETLES AT AIRPORTS IN TENNESSEE

Ken Copley
USDA-APHIS-PPQ

The Japanese beetle (*Popillia japonica* Newman) was first found in the United States in 1916 in New Jersey. Since its introduction in 1916, the Japanese beetle has spread throughout most of the United States east of the Mississippi River. A primary objective of USDA, APHIS

is to prevent the artificial spread of Japanese beetle from the Eastern United States to the Western United States. With the possibility of spread by aircraft, the Japanese beetle is a major threat to the agriculture in the Western United States. Eight Western States need to be protected from Japanese beetle infestations: Arizona, California, Idaho, Montana, Nevada, Oregon, Utah and Washington. Passenger and cargo flights are being monitored at airports in Japanese beetle infested states to prevent the introduction of beetles into those states. In Tennessee, USDA, APHIS is monitoring passenger and cargo planes at the Nashville, Knoxville and Memphis airports.

TENNESSEE ENTOMOLOGICAL SOCIETY

Minutes of the TES Summer Board Meeting
August 9, 2002

The Summer Board meeting was convened at the Ellington Center Extension Offices at 10:10 by President Steve Hamilton. Present were Haun, Powell, Hale, Murphree and Lentz. Minutes of the October meeting were distributed. The committee appointments were discussed. Several changes were to be made to the list included on the 'Post Meeting' minutes. Murphree (Hale seconded) moved that the minutes be approved without reading but with changes in the committees.

Powell presented the treasurer's report. TES spent more than it brought in at the last meeting due to reduced attendance. Skinner was asked to hold the speaker honorarium and expenses to $300. There will be joint participation with UT Department of Entomology and Plant Pathology. There are no more TES pins. There was discussion as to the making of pins. Lentz will check on the mold for making pins and the jeweler who made the pins. Hale (Haun seconded) that the treasurer's report be accepted. The motion was approved.

Hale gave the Local Arrangements committee report. The Drury Inn (Harding and I-24) will be the host hotel. The inn will provide a hospitality room for the mixer. There was discussion of the Mexican restaurant for the dinner. Hale will check with the restaurant. Hale discussed the Ellington Ag Center maps that are available now. He suggested that the map be included in the call for papers. Haun will arrange rooms for the premeeting board meeting in the Holman building. Audiovisuals were discussed. LCD projectors will be used and Hale will provide. He will also arrange for screen and computer. Hale will check with Vail on a remote. The refreshments for the breaks were discussed. Hale will arrange for a lunch to be brought in. Haun mentioned the new commissioner, John Rose, may be available to welcome TES members. Skinner needs to be notified of Rose's participation. Hamilton will send a formal letter of invitation to Rose. Haun suggested that the speaker Caron fly into Nashville and Haun will transport him to Knoxville. It is much cheaper to do this. The cost of nonmembers registration fee was discussed. Some suggested a $10 fee be assessed. Haun (Hale seconded) moved that we charge the $10 fee for nonmembers for the one-day attendance. The beekeepers should be invited to hear the speaker. The motion passed. Murphree suggested we get a new registration poster made up. Hamilton will send a the logo to Powell. The call for papers will be mailed by Skinner. It will include the Caron bio, Vail's letter to the students, maps to the site, officers and committees, the call for papers and the TES brochure. Haun will work with Hale on getting the material out.

The call for student papers was discussed. The certificate was edited to delete the last two lines and increase the length of lines for President and Awards Chair. Also, the logo should be used as a water mark. Haun suggested that Williams be notified of the 'Harry Williams Award'. Vail and Skinner will contact Gerhardt for help on the plaques. Hamilton asked about raising funds for the reception. Shamiyeh, Lentz and Hale will contact industry representatives for support for the refreshments at the meeting. Hamilton will contact Skinner about the time for submission of student papers. Doris Caldwell has done the program in the past. Hamilton will contact Gerhardt about the plaques.

Publicity chair Murphree discussed the brochure. The meeting registration will be included on the brochure. Other revisions were presented to Murphree. The time lines of proclamation,

press releases, etc. were determined. The publicity poster should have education/research, regulatory and industry portions. Members were encouraged to bring posters to the meeting. Hamilton will convey this to Skinner for the call for papers.

Haun presented the editorial report. Caldwell likely had not been paid during the 2001 year. Hale (Murphree seconded) moved that Caldwell be paid the $200. The motion passed. Haun asked about Prediction/Evaluation reports for the 2001 season. Hamilton asked that renewal memberships be solicited in the call for papers. Lentz asked that the Firefly membership application be changed to send the renewal/new membership be changed to the Treasurer. The pins should not be mailed, but should be picked up at the meeting.

Constitution/Operations Procedures should include the timeline schedule. Haun asked about publishing the Firefly electronically. The general consensus was to go to a CD. The new awards will need to go in the procedures.

Membership Chair Grant was not in attendance.

Hamilton mentioned new officers who could be elected. The secretary, president-elect, and members at large were the most important. There is a need to recruit new potential officers.

The meeting adjourned at 12:30.

Gary L. Lentz
Secretary
Tennessee Entomological Society

TENNESSEE ENTOMOLOGICAL SOCIETY

Minutes of the Board of Director's Post Meeting Meeting
October 13, 2001

The meeting was called to order by Hamilton at 11:00 a.m. He went over the committee volunteer list. He talked of other individuals who might contribute to TES and should be involved. Chairs of various committees were discussed. The list of committees was to be developed by Hamilton.

Some of those discussed were as follows:

Auditing: Youmans, Hale, Lentz
Awards: Vail, Skinner, Murphree, Schiller
Membership: Grant, Ourth, Joe Schiller, Youmans, Skinner, Watson
Constitution/Operating Procedures: Haun, Powell, Dunn, Burgess
Local Arrangements: Powell, Murphree, David Cook, Latson, Hale(temporary); chair of the committee to be determined after the meeting site in Nashville has been determined. Lentz suggested that Murphree contact Latson about the possibility of meeting on the David Lipscomb University campus.
Nominating: Gerhardt, Snodderly, Lambdin
Prediction/Evaluation: Powell, Klingeman, Grant, Copley, Kauffman, Patrick
Program: Skinner, McDonnell, Jason Oliver
Publication/Editorial: Haun, McDonnell, Snodderly

Publicity: Murphree, Bilbrey, Skinner
Hamilton discussed having the date of the meeting set earlier and distributed by email to members and prospective members. The location of the meeting was also discussed. Murphree suggested two years in Middle Tennessee and then a year west, two years in Middle Tennessee and then east. The date needs to be determined, considering the fall breaks at some of the institutions.
Keynote speaker topics were mentioned such as West Nile Virus, Fire Ants, Gypsy moth, etc. Potential speakers need to be identified and names submitted to Skinner.
Hamilton will distribute the responsibilities of the committee chairs to the new chairs.
The meeting was adjourned at 11:32 a.m.

Gary L. Lentz
Secretary
Tennessee Entomological Society

Minutes of the Tennessee Entomological Society
October 13, 2001

The meeting was convened by President Haun at 8:06 a.m. He stressed that we need to involve more schools in TES. There have been some travel restrictions and some illness that have prevented members from traveling.

Haun asked for the reading of the minutes. Lentz moved that we dispense with the reading of the minutes since they were published in the Firefly. Hamilton seconded the motion which passed.
Powell presented a printed copy of the Treasurer's report. All the pins have sold and we will have to obtain more. The Treasurer's report is published each year in the Firefly. Hamilton asked about the cost of the bank account. There was some discussion of the account. He will look into other accounts. One possibility was the Credit Union at Ellington. Youmans moved (Hale seconded) that the report be accepted. The motion passed.

Youmans presented the Auditing report. The books were found to be in order. Hamilton moved (Joe Schiller seconded) that the report be approved. The motion passed.
Hamilton presented the report from the Local Arrangements Committee. TES thanks the Center of Excellence for furnishing the refreshments for the breaks.
Murphree presented the Publicity Committee report. He mentioned the new table banner which can be made available to members going to other meetings. He discussed the brochure which is available. He also displayed the proclamation which the governor signed declaring this Tennessee Entomology Week. The proclamation was presented to Hamilton for display in the Sundquist Science Complex. It is hoped that future proclamations can be deposited at the host organization.
Vail presented the Awards Committee Report. The Student paper award was presented to Ken Davenport. The Caron Outstanding Entomologist award will be presented to Dr. Harold

Bancroft of the University of Memphis at next years meeting. Vail proposed the adoption of certificates of recognition to go to students competing in regional science fairs and competition for the Howard Bruer award which is in development. She solicited input from members to refine these awards for middle and high school students. There was not a 4-H winner for the Harry Williams award this year.

Membership committee chair Grant sent a report. There needs to be more recruitment from industry and also academia.

Snodderly was unable to present the Publications/Editorial report. Haun reported that Snodderly with the assistance of Doris Caldwell assembled the Firefly.

Prediction and Evaluation Committee chair Hale solicited reports from the membership. Vail asked if the Firefly might be put on the web. Some discussion followed.

There was no Constitution/Operating Procedures report, but there is work which needs to be done.

Keener was not able to present the Nominating Committee report, but the names presented were John Skinner for President and Gray Haun to replace Snodderly as Editor.

Old Business

The responsibilities of the Historian were discussed. Skinner volunteered to talk with Harry Williams. Skinner nominated Hale for the position of Historian. Vail seconded the motion which passed.

Haun mentioned the number of student papers. Members need to recruit students to present. The award has been increased by $25. There was discussion of the recruitment of new members. Youmans mentioned pesticide persons at stores, organic gardeners, etc. Youmans will try to get a new email list of industry representatives. He suggested that there needs to be more advanced planning and notification. Schiller mentioned undergraduate research involvement. There is a need to try to recruit more of the undergraduates in the local colleges where the meeting is to be held. Haun asked that ideas be forwarded to incoming President Hamilton.

There was discussion of moving the summer board meeting to a different time. The possibility of moving the meeting to May or June would need to be coordinated closely with the Local Arrangements Committee, but would give much more time for the call for papers to go out.

Former Presidents Murphree, Hale and Youmans escorted incoming President Hamilton to the podium. Hamilton recognized the contributions of outgoing President Haun for the two terms of service and presented him a plaque of appreciation. Hamilton adjourned the meeting at 9:20 a.m.

Gary L. Lentz
Secretary
Tennessee Entomological Society

Tennessee Entomological Society
Minutes of the Board of Director's Premeeting Meeting
October 12, 2001

The meeting was called to order by President Gray Haun at 11:10 a.m. The meeting was held in the Board Room of the Sundquist Science Complex on the campus. Program Committee chair Steve Hamilton reported on the facilities that would be available to the TES. There was some question as to whether the student paper that was scheduled would be presented due to serious health problems of a friend. It was later determined that the paper would be presented. Local arrangements were discussed by Hamilton. He mentioned the arrangements for the afternoon break and the social hour this evening that would be held at the Red Roof Inn. He needed a count of those who would be attending the dinner tonight at Ryan's.

Powell presented the Treasurer's report. Vail moved (Hamilton seconded) that the report be accepted. A complete report is to be presented in the next issue of the Firefly.

Publicity Committee chair Murphree reported that ESA members in Tennessee had been contacted about the meeting. Publicity on the meeting also went out to the Chronicle, a local paper. He also mentioned and distributed copies of Governor Sundquist's proclamation declaring October 7-13, 2001 as **Tennessee Entomology Week**. Murphree also reported that he did get another banner prepared which would serve as a table skirt. This is in addition to the Podium banner previously prepared. Haun suggested that the original copy of the Proclamation be framed and put on display in the Sundquist Science Complex at APSU. This idea will be presented at the regular business meeting in the morning.

Membership Committee chair Grant could not attend the meeting. An email was sent to the committee members thanking them for their support during the recruitment of members. The UT/EPP server was down for three weeks and this presented problems of all kinds, not just for TES members.

Awards Committee chair Vail discussed criteria and procedures for the Howard L. Bruer award. Vail suggested that a certificate of recognition be developed which would be different from the Award itself. Vail indicated that the Caron Award is to be presented to Harold Bancroft of University of Memphis. Bancroft will not be in attendance this year and would like to receive the award next year at the meeting.

Publications Editor Snodderly was unable to attend. Seventy-five copies of the Firefly were printed by Sir Speedy in Knoxville at a cost of $277.66. Doris Caldwell indicated that the honorarium was more than adequate, but the Board did not feel it should offer less and that her efforts were well worth the $200. Editor Snodderly asked to be replaced as Editor.

Nominations Committee chair Jim Keener could not be present. His committee suggested that John Skinner be nominated for President-Elect. the new Editor be Gray Haun, and the Member at Large be Ray McDonnell.

Prediction/Evaluation Chair Hale indicated he would solicit more reports for the Firefly. Auditing Committee chair Youmans indicated the books of the Treasurer would be audited tonight.

There was no report from the Constitution/Operating Procedures Committee although there was discussion of some needed changes and additions. The guide is published every two years in the Firefly.

Old Business

The changes in the Howard L. Bruer Award and the Harry Williams award were discussed. Vail will develop some criteria for both. It was felt that students (middle and high school) who develop an insect project for regional science fairs could be presented a certificate of recognition from TES and that they could apply for the Howard L. Bruer award to be judged by the Awards Committee. The Harry Williams award would go the 4-H winner of the state of Tennessee.

New Business

It was suggested that seeking the Proclamation from the Governor be done on an annual basis.
It was suggested that the current Historian Harry Williams might need to be replaced.
The suggestion was made that the next meeting of TES be held in the Nashville area.
The meeting adjourned at 12:24.

Gary L. Lentz
Secretary
Tennessee Entomological Society

TENNESSEE ENTOMOLOGICAL SOCIETY

Treasurer's Report

October 2000 - October 2001

Books and Records audited by Auditing Committee (Frank Hale, Chair)

Balance on Hand 10-11-00

Checking	$1691.38
Certificate of Deposit	$2800.00
Cash	$220.00
TOTAL	**$4711.38**

Number of pins on hand 10-12-01. . . . . -4-

DISBURSEMENTS

Lacey McNally- Student Award	($50.00)
Sir Speedy- Firefly Publication for 1999 meeting	($246.00)
Lynn Snodderly- Firefly Publication for 2000 meeting	($277.66)
Lynn Snodderly- Refreshments	($40.00)
Gray Haun - Refreshments	($48.00)
Doris Caldwell - Honorarium	($200.00)
Reid Gerhardt - Plaques (Brandon's)	($71.45)
Steve Murphree - Banner (The Sign Center)	($71.45)
Plus Club Dues	($60.00)
TOTAL EXPENSES	**($1064.56)**

INCOME

31 Registrations	$620.00
31 Regular Dues plus 2 Regular Dues for 2001-02	$165.00
1 Sustaining Due	$25.00
1 Corporate Due	$25.00
3 Student Dues	$3.00
Donations	$30.00
2 Pins	$20.00
Checking Account Interest	$10.99
Interest from matured CD	$245.48
TOTAL INCOME	**$1144.47**

BALANCE ON HAND 10-12-01

Checking	$1625.81
Certificate of Deposit	$3045.48
Cash	$120.00
TOTAL ASSETS	**$4791.29**

NOTE: CD # 5328641582, issued 3/12/99, matured on 3/11/01. The amount was 3045.48. CD # 5328920538, issued 8/08/2001, will mature on 8/08/2003. The current value is 3045.48. The interest rate is 4.04%. Interest payments are made quarterly.

Respectfully Submitted
Steve Powell, Treasurer

ATTENDANCE ROSTER OF THE 2001 ANNUAL MEETING OF THE TENNESSEE ENTOMOLOGICAL SOCIETY

MEMBER	AFFILIATION	LOCATION
	Regular Members	
Burton, Willodean D.S.	Austin Peay St. Univ.	Nashville, TN
Carder, Mark	U.S. Army	Newman, GA
Dunn, Joe C.		Nashville, TN
Hale, Frank	UT Ag. Ext.	Nashville, TN
Hamilton, Steven W.	Austin Peay St. Univ.	Clarksville, TN
Haun, Walker G. (Gray)	TN Dept. Agri.	Nashville, TN
Keeton, Dana M.	Univ. of TN	Jackson, TN
Lentz, Gary L.	Univ. of TN	Jackson, TN
McDonnell, Ray	TN Dept. Agri	Knoxville, TN
Moore, James P.	Vector Sci. Consortium	Omaha, NE
Murphree, Steven C.	Belmont Univ.	Nashville, TN
Newkirk, Harry	US Army	Knoxville, TN
Patrick, Russ	Univ. of TN	Jackson, TN
Powell, Steve D.	TN Dept. Agri.	Nashville, TN
Schiller, Joseph R.	Austin Peay St. Univ.	Clarksville, TN
Skinner, John A.	Univ. Of TN	Knoxville, TN
Sudbrink, Jr., Donald L.	Miss. St. Univ.	Stoneville, MS
Vail, Karen	Univ. of TN	Knoxville, TN
Watson, Charles	SBI Envron.	Fort Wright, KY
	Student Members	
Brinkman, Robert	Austin Peay State University	Nashville, TN
Cook, David L.	University of Tennessee	Nashville, TN
Davenport, Ken	Austin Peay State University	Nashville, TN
Fletcher, Susan	Austin Peay State University	Nashville, TN
Houtman, Rebecca	Austin Peay State University	Nashville, TN
Jacob, Subi	University of Tennessee	Knoxville, TN
Williamson, Scott	Austin Peay State University	Nashville, TN
	Sustaining/Corporate Members	
Youmans, Clete	BASF	Dyersburg, TN

BOARD OF DIRECTORS

President - Gray Haun
Past President - Catharine Mannion
President Elect - Steve Hamilton
Secretary - Gary Lentz
Treasurer - Steve Powell
Editor - Lynn Snodderly
Historian - Harry Williams
Member-at-Large - Jim Keener
Member-at-Large - Lee Greer

COMMITTEES: 2000 - 2001

AUDITING
Clete Youmans, Chair
Frank A. Hale
Gary Lentz

AWARDS
Karen Vail, Chair
Steve Murphree
Dana Keeton
Reid Gerhardt
John Skinner

CONSTITUTION/OPERATIONAL PROCEDURES
Gene Burgess, Chair
Joe Dunn

LOCAL ARRANGEMENTS
Steve Hamilton, Chair
Dana Keeton
Frank Hale
Joe Schiller

MEMBERSHIP
Jerome Grant, Chair
Harold Bancroft
Reid Gerhardt
Lee Holt
Don Ourth

NOMINATING
Jim Keener, Chair
Gene Burgess
Lynn Snodderly

PREDICTION/EVALUATION
Frank Hale, Chair
Steve Powell
Gray Haun
Jason Oliver

PROGRAM
Steve Hamilton, Chair
Reid Gerhardt
John Skinner
Drew Beld

PUBLICATION/EDITORIAL
Lynn Snodderly, Chair
Jerome Grant
Ray McDonnell

PUBLICITY
Steve Murphree, Chair
John Skinner

Tennessee Entomological Society

Prediction and Evaluation

Committee Report

October 13, 2001

Frank Hale - Chair
Committee Members:
Steve Powell
Gray Haun
Jason Oliver

Cotton Insects in Tennessee in 2001

Gary L. Lentz
Department of Entomology and Plant Pathology
The University of Tennessee
West Tennessee Experiment Station, Jackson, TN

During the 2001 crop season, the most damaging and widespread insect group was probably the stink bug complex. Fields in almost every cotton county reached threshold levels and had to be controlled with insecticides. There has been a bit of speculation as to why the pests were more abundant this year compared to previous years. Two factors that have contributed to the problem are the widespread adoption of Bt cotton and the success of the boll weevil eradication program. Due to the adoption of Bt cotton, there has been a significant reduction in insecticide applications for the control of bollworm and tobacco budworm. In the boll weevil eradication program, only about 25% of the acreage had to be sprayed in the second year of the program in zones 2 and 3. This overall reduction in insecticide sprays has allowed the stink bug complex to increase throughout the season. It may also be true that the winters in recent years have not been too severe. This may have allowed greater survival of the overwintering adults.

TENNESSEE COOPERATIVE GYPSY MOTH PROGRAM 2001

Bruce W. Kauffman
Department of Agriculture, Division of Forestry
P. O. Box 40627, Nashville, TN 37204

Egg Mass Surveys

Egg mass surveys were carried out at two locations in two counties during the winter of 2000-2001 (Campbell and Monroe). No egg masses were found.

Eradication Sites

A total of 2,468 traps were placed in five eradication sites in 2001, totaling 190 square miles. These traps caught 6,705 moths (9 moths in 2000). One ground spray was conducted in May, 2001. Burlap banding was placed in one area. Mass trapping occurred on five sites. Following aerial treatments in 1999, mass trapping was conducted around the largest moth concentration along the New River near Huntsville. A total of 16 moths in 11 traps were caught in the Huntsville spray block in the area mass trapped. These catches represent an increase in the number of moths (5 moths in 2000). A ground treatment with Btk sprayed twice will be conducted over one acre in May, 2002. No other moths were caught in the area, so trapping will be reduced from 156 square miles to 1 square mile (36 traps/square mile plus mass trapping).

Following tremendous moth catches in Campbell County along Hickory Creek in June, 2001, an new eradication site was found in the Stinking Creek community (6,659 moths). Thousands of egg masses will be treated with soybean oil this winter. A 12,000 acre area is proposed for treatment using Btk sprayed twice in May, 2002. Burlap banding will also be placed in addition to mass trapping. A 26 square mile area is proposed for trapping (16 traps per square mile) in this steep, mountainous location.

No moths were caught for the first time in Cumberland County (Elmore Road). Grid trapping will be similar to 2001 (259 traps) over 12 square miles (16-36 traps/square miles plus mass trapping). Trapping will also include a portion of Fentress County.

In Sevier County (near Pigeon Forge), one moth was caught this year, representing a reduction from 2000 (3 moths). This moth catch may represent a reintroduction by hitchhiking. Grid trapping will be conducted (36 traps per square mile) over one square mile next year in addition to mass trapping.

A reduction in moths (29 moths vs 42 in 2000) occurred in Monroe County (near Tellico Plains) following mist blower treatment on one acre sprayed twice with diflubenzuron in May, 2001. Additional ground treatments with this insecticide next year will be undertaken. Burlap banding (20 bands) will be continued as well as mass trapping. Grid trapping will be similar to 2001 (150 traps) over 5 square miles (16-36 traps/square mile).

Trapping

TDA Regulatory Services (TDARS) and USDA APHIS PPQ provided assistance with one ground treatment location. TDA Forestry (TDAF) hired 23 individuals to trap four existing infestations (Campbell, Cumberland, Monroe, and Sevier Counties) and urban areas (1 trap/square mile), campgrounds, mobile home sites and sawmills (selective trapping rates) statewide. In addition, they delimited 48 sites covering 48 square miles. TDAF hired an additional eight persons under an agreement with the USDA Forest Service (USDAFS) to delimit existing infestations in Scott County (156 square miles). An additional ten persons were to be hired by TDAF with state money to do detection trapping. TDAF under a cooperative agreement with USDA APHIS PPQ trapped one half of each of 65 counties in the

state at the rate of one trap per four square miles. USDA APHIS PPQ personnel trapped half of Shelby County (252 traps). Other cooperating trapping agencies include USDA Forest Service, USDI National Park Service, Tennessee Valley Authority, US Corps of Engineers, US Army, USDI Fish and Wildlife Service, US Air Force and US Department of Energy. They placed 414 traps of the state detection trap total.

Detection Site Trapping

A total of 12,902 traps were placed in 2001 to discover introductions of the gypsy moth into the State. These traps caught 58 moths, a total less than 2000 (65 moths). The state had more introduction sites (47) this year than last (39). Over two-thirds (70) of the 95 counties in the State had at least one moth trapped in them since the first moths were caught in 1972 in Cocke (1 moth) and Sevier (1 moth) Counties. This year moths were caught in Carroll, Hancock, Hawkins, Hardin, and Jackson Counties for the first time.

Six sites caught multiple moths per trap (15 moths). Two locations (Jackson and Overton Counties) were in an urban grid (1 trap/square mile), and four (Knox, Rutherford and Sevier (2) Counties) were in campgrounds.

Delimiting Site Trapping

A total of 912 traps were placed in 48 delimiting sites in 2001 (16 traps/square mile). These locations evaluate sites where the gypsy moth was found in 2000 but was not established (no other life stages were found). Fourteen (14) areas were positive with 62 moths caught in a total of 12 square miles (8 sites/52 moths in 2000).

In rural Wilson County (Prosperity), 14 moths were trapped in one square mile (1 in 2000). Following an egg mass survey, further plans will be made. Catches in five delimiting grids in Campbell County caught 29 moths and will be handled as part of the Campbell County infestation in Stinking Creek.

In 2002, 54 sites are proposed for delimiting trapping. One area in each of three counties (Scott, Wilson, and Monroe) will have egg mass surveys during the fall and winter of 2001-2002.

Eradication Site Trapping

Five sites will be trapped in 2002 involving 45 square miles where gypsy moths were caught, and the insect was established (two or more life stages of the gypsy moth present). Additional sites may be added, pending the results of the egg mass surveys.

Forest Insect and Disease Highlights - 2001

An April **frost** for the second year in a row killed the leaves of bottomland sycamore, elm, cottonwood and hackberry as well as some black walnut and yellow poplar on lower slopes in northern Middle Tennessee (Davidson, Wilson, Smith, Houston, Dickson, Montgomery, Lewis and Williamson Counties). Scattered urban trees (silver maple, plum, apple) were damaged in Middle Tennessee as well as red oak and silver maple in Carroll and Benton Counties.

A **tornado** in Henry County damaged the urban areas of Paris. **Winds** toppled dead pines onto houses around Norris Lake in Campbell County and in woodlands in Claiborne and Union Counties in October. Several hardwood species were damaged by winds in Hickman County as were oak, red cedar and hackberry in Davidson County. One location of wind damage in Coffee and Franklin Counties was 200 feet wide and three quarters of a mile long.

The **gypsy moth** was found in 44 new locations throughout the State. There were increased catches in hitch-hiking moths in northeastern Tennessee - a result of the southern transport of higher Virginia populations. Five know infested counties have gypsy moth eradication projects in progress (Campbell, Monroe, Scott, Sevier and Cumberland Counties). All these locations are in East Tennessee and the Cumberland Plateau. Btk biological insecticide is proposed for two aerial applications over 7,500 acres in Campbell County in addition to increasing trapping densities. Trap catches (6,675 moths) in this county were the highest in the state since 1984 (6,633 moths in Johnson County). Ground treatments will be undertaken in Monroe and Scott Counties. Trapping densities will be the same for Cumberland and Sevier Counties.

Some white oaks were lightly infested with **jumping oak gall** in West and Middle Tennessee. No **oak wilt** was present in flights over White, Cumberland and Putnam Counties in June. However, reports of **oak and maple borers** increased in the late summer and fall in combination with greater oak and maple decline abundance.

Fire damaged over 36,000 acres of primarily upland hardwood forest in East Tennessee in the fall of 2001 from November 1 to November 25. Over 47,200 acres burned statewide in the fall fire season. These fires killed hardwood saplings under four inches in diameter and wounded larger oaks and hickories making them susceptible to wood decay.

Southern pine beetle (SPB) populations continued at high levels in areas east of Nashville for the fourth year in a row, moving into counties in Middle Tennessee where it had never been reported. Over 12,000 spots (9,094 spots in 2000) occurred statewide in 2001. To date, over 350 million dollars of pine forest have been killed. In 2001, 70 counties had SPB activity with 58 classified in outbreak status. The outbreak has been so intense in the mountains and Cumberland Plateau that stands of pure white pine and hemlock were infested, an uncommon phenomenon. The southern yellow pine component in the Upper Cumberland Plateau counties has been reduced by over 50 percent.

Black turpentine and **Ips beetle** populations decreased statewide with the advent of more abundant rainfall. Infestations in West Tennessee were light (Weakley, Carroll, Benton, Haywood, Fayette, Shelby, McNairy and Chester Counties) as well as in Williamson, Houston and Humphreys Counties in Middle Tennessee.

Nantucket pine tip moths increased statewide for the second year in a row. One 7 acre planting of 2 year loblolly pine in Dickson County had 100% of the shoots infested. Pheromone trapping in northern Middle Tennessee (Wilson County) indicated a fourth generation in September. Other high levels were reported in McNairy, Hardeman, Carroll, Benton and Lewis Counties.

Ozone damage to white pine increased in Morgan, Scott and Knox Counties on susceptible seed orchard trees as well as in plantings in Bledsoe and Claiborne Counties. In Middle Tennessee, **yellow poplar canker** (Nectria) increased in Bedford and Lincoln Counties. Elsewhere in Middle Tennessee, **sycamore decline** was up in Cannon, Hickman, Perry and Warren Counties. **Maple decline** increased in Maury and Hickman Counties in Middle Tennessee.

Reduced moisture levels occurred only for a few weeks in July statewide except for late fall dry weather in November fueled by high winds. However, the cumulative effect of reduced water tables the previous three years caused continued oak/hickory mortality in 35 scattered counties statewide. Often suppressed or older oaks died first (1 to 5 trees per acre) on southern and western facing slopes or sites with shallow soil depths. Fewer sapling red cedars were killed in Lincoln County than in 2000 (Middle Tennessee). White pine mortality was also reduced from 2000 in Middle Tennessee. Effects of reduced moisture were present on Bradford pear and magnolia on droughty urban sites in northern Middle Tennessee.

Hypoxylon canker increased on all oak species in West Tennessee (Haywood, Fayette, Carroll and Benton Counties), Middle Tennessee (Bedford, Dickson, Lewis, Perry, Montgomery, Maury and Hickman Counties and upper East Tennessee (Anderson, Blount, Knox and Sevier Counties). **Sycamore anthracnose, oak leaf blister, powdery mildew** and other **foliage diseases** infected fewer trees statewide with drier spring weather.

Dogwood anthracnose mortality continued in the eastern third of the State on the high hazard sites. **Procerum root disease** continued to kill scattered white pines in the urban areas of East and Middle Tennessee. **Mites** on southern red oak caused extreme leaf curl in Lincoln and Bedford Counties.

Coniferous aphids increased this fall causing nuisance problems on cut Christmas trees. Other aphid species were up on yellow poplar and other hardwoods in McNairy and Carroll Counties. **Walkingsticks** were at low levels in Pickett County but increased in Carroll County. **Bagworms** populations through low increased in some Middle Tennessee counties

(Wilson, Overton, Clay, Robertson). **Oak lacebugs** caused yellowing of white oaks, chinkapin and chestnut oaks in Humphreys, Benton, Loudon and Roane Counties.

Loblolly pine sawflies were at higher levels in northern Middle Tennessee (Cheatham, Davidson, Robertson, Putnam, Rutherford and Williamson Counties) and continued at lower levels in scattered locations in West Tennessee. **Redheaded pine sawfly** defoliation increased in scattered loblolly pine stands in Polk, Dickson and Benton Counties. **White pine and pales weevil** damage was reduced on the Cumberland Plateau compared to previous years.

Fall webworm populations through low were up in counties west of Nashville with hickory, cherry and persimmon the favored species. **Eastern tent caterpillars** were generally at moderate levels statewide with some heavy defoliation in Cumberland, Loudon, Maury, Anderson and Roane Counties. **Locust leaf miners** caused moderate defoliation and some scattered heavy defoliation in East and Middle Tennessee. Populations of **summer hardwood defoliators** and **hackberry butterflies** were down statewide. **Grasshoppers** were abundant through mid-summer in Fayette, Montgomery, Haywood and Monroe Counties.

Fall cankerworm heavily defoliated 200 acres of upland hardwoods in northern Monroe County (Citico). Other reports in East Tennessee involved **green fruitworms** and **leaf tiers** in Marion, Roane and Lewis Counties. **Spring cankerworms** lightly defoliated hackberries in Wilson and Davidson Counties for the first time in at least 10 years.

Seedbug and coneworm damage was reduced to 10 pounds of pine seed infested this year. **Fusarium and/or Phytophthora root rot** caused 5 to 10% losses in Shumard and sawtoothed oaks in the West Tennessee nursery. Various species of **groundnesting bees** were at higher levels in northern Middle Tennessee, prompting calls from some concerned urban residents and Christmas tree growers in Smith and Wilson Counties.

SPB Summary - December, 2001

Southern pine beetle populations have diminished west of Nashville since late summer. Most activity was concentrated in the southern half of this region. However, infestations to the east of Nashville have continued at epidemic levels. In the last year near Nashville, 11 counties primarily have become epidemic (58 statewide of the 70 infested counties).

Other locations such as the Upper Cumberlands and northeastern mountain counties have declining SPB populations after being the first areas infested in the current outbreak (since 1998). A few valley counties (such as Roane, Rhea, Meigs and Anderson Counties) have had a reduced level of infestations since late summer. However, the majority of the valley and southern half of the mountain counties continue at high levels.

The number of SPB infestations increased statewide (12,746 spots) over 2001, but the amount of tons killed (4 million) dropped from 2000 (12 million tons) and 1999 (6 million tons). To date, beetles have killed over 25 million tons since 1998 statewide, amounting to over 350 million dollars lost. To put this in proper perspective, the annual harvest of all tree species in the State is 13 million tons according to the latest forest inventory.

This four year infestation has resulted in the greatest impact to pine forests in the state since records have been kept on SPB. It appears that the beetles will continue killing pines in the valley and southern mountain counties in 2002. SPB traps in those regions will more accurately forecast the population trends by June of this year.

Predictions and Evaluations on Regulated Insects

Gray Haun, Steve Powell, and Bruce Kauffman
Tennessee Department of Agriculture
Nashville, TN 37204

Description of Maps

Gypsy Moth - *Lymantria dispar*
The number of years Gypsy Moth(s) have been trapped in counties from 1972 to 2001 (Actual number of years).

Gypsy Moth - *Lymantria dispar*
The number of years Gypsy Moth(s) have been trapped in counties from 1972 to 2001 (B/W Illustration - Grouped Numbers).

Gypsy Moth - *Lymantria dispar*
The number of years Gypsy Moth(s) have been trapped in counties from 1972 to 2001 (Color Illustration - Grouped Numbers).

Exotic Bark Beetle Survey - A total of 10 traps were placed in Davidson and Shelby counties. All traps were negative.

Africanized Honey Bee - *Apis mellifera scutellata* A total of 18 traps were placed in Shelby, Madison, Benton, Davidson, Smith, Putnam, Cumberland, Hamilton, and Knox counties. All traps were negative for Africanized bees.

Asian Longhorned Beetle - *Anoplophora glabripennis* A total of 10 sites in Shelby and Davidson counties were surveyed with no evidence of the insect or damage found.

Exotic Moth Survey - Three species of exotic moths, African Cotton Leafworm (*Spodoptera litura*), Egyptian Cotton Leafworm (*Spodoptera littoralis*), and the False Codling Moth (*Crytophlebia leucotreta)* were surveyed for in 2002. Twenty-two sets of three traps (one trap for each of the three species) were placed for a total of 66 traps. Set(s) of traps were placed in Shelby, Fayette, Madison, Stewart, Montgomery, Cheatham, Robertson, Williamson, Rutherford, Cumberland, Blount, and Greene counties.

Gypsy Moth - Gypsy Moth Catches by County - 2001 A total of 6798 Gypsy Moths were caught in 2001 with new county records for Carroll, Hardin, Jackson, Hancock, and Hawkins counties. There are known infestations in Campbell, Cumberland, Monroe, Scott, and Sevier counties.

IFA Quarantine - All or part of 29 southern Tennessee counties are quarantined for the Imported Fire Ant (*Solenopsis invicta* or *Solenopsis richteri* or their hybrid)

Pine Shoot Beetle - *Tomicus piniperda* A total of 9 traps were placed in Shelby and Davidson Counties during 2001 with all traps negative.

Japanese Beetle - *Popillia japonica* All or part of 80 counties in Tennessee are generally infested with the Japanese Beetle.

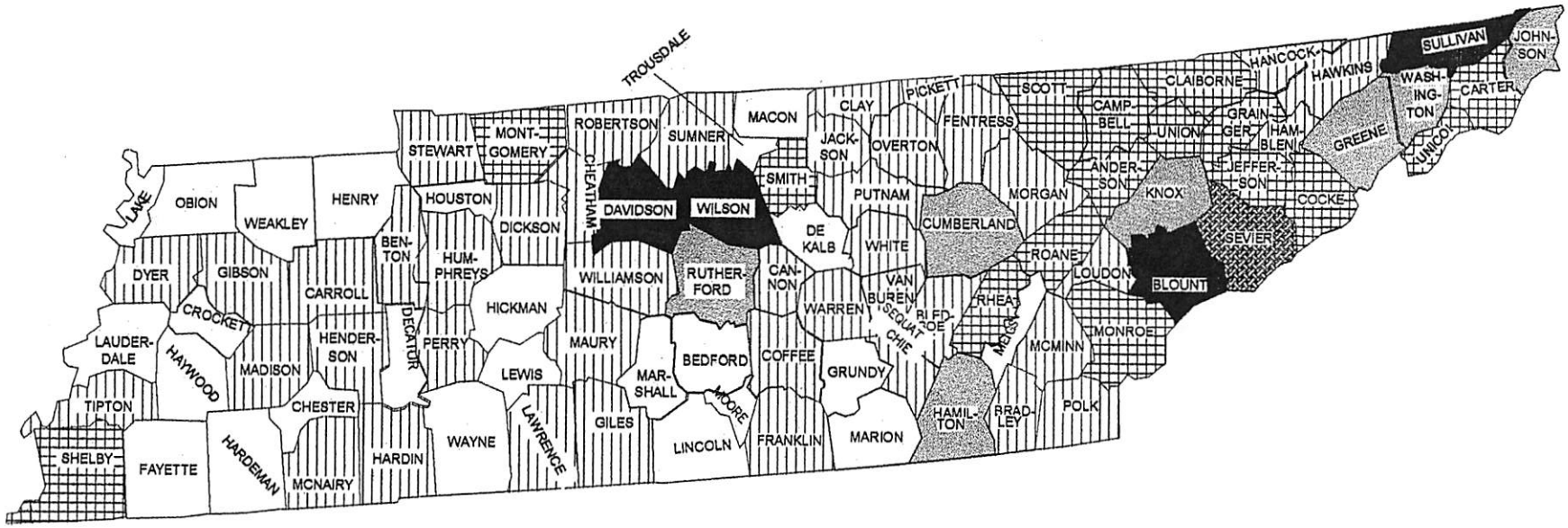
Pink Bollworm - *Pectinophora gossypiella* A total of 170 traps were placed in Lake, Dyer, Lauderdale, Tipton, and Shelby counties during 2001 with all traps negative.

Khapra Beetle - *Trogoderma granarium* A total of 24 traps were placed in Shelby and Davidson counties during 2001 with all traps negative.

Small Hive Beetle - *Aethina tumida* A total of 460 sites were surveyed in Williamson, Franklin, Hamilton, Anderson, Knox, Blount, Washington, and Johnson counties with all sites negative.

TENNESSEE

Number of Years Gypsy Moths Have Been Trapped in Counties From 1972 TO 2001



= 1 - 5

= 6 - 10

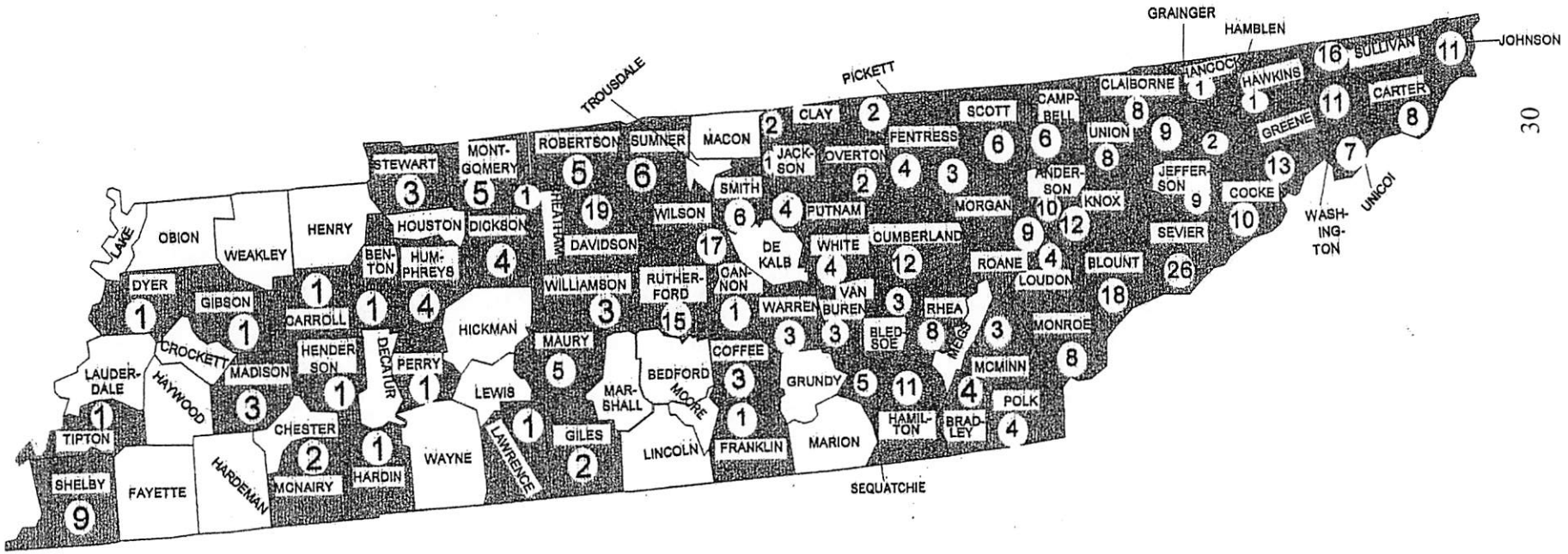
= 11 - 15

= 16 - 20

= > 25

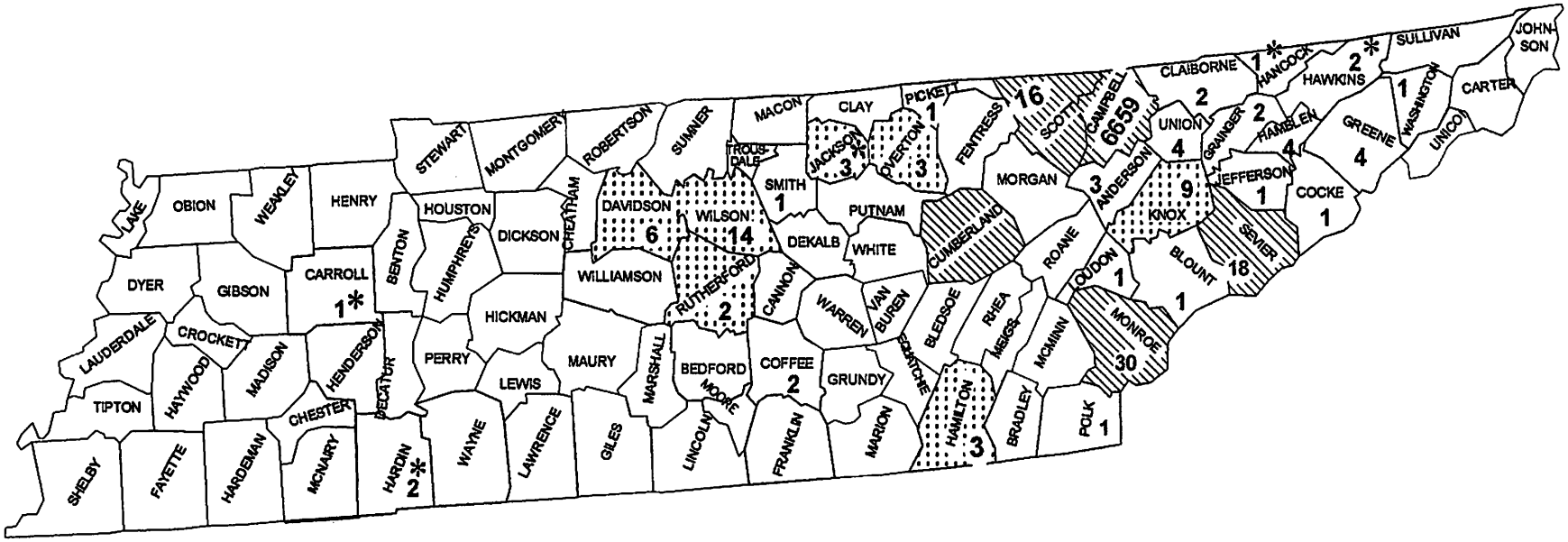
TENNESSEE

NUMBER OF YEARS GYPSY MOTHS HAVE BEEN TRAPPED IN COUNTIES FROM 1972 TO 2001



updated 08/26/02

TENNESSEE DEPARTMENT of AGRICULTURE



Gypsy Moth Catches by County - 2001

6798 Moths

Traps with Multiple Catches

Campbell - 254	Overton - 1
Davidson - 1	Rutherford - 1
Hamilton - 1	Scott - 2
Jackson - 1	Sevier - 3
Knox - 1	Wilson - 1
Monroe - 4	

○ = Number of Gypsy moths caught

▨ = Known Infested Counties

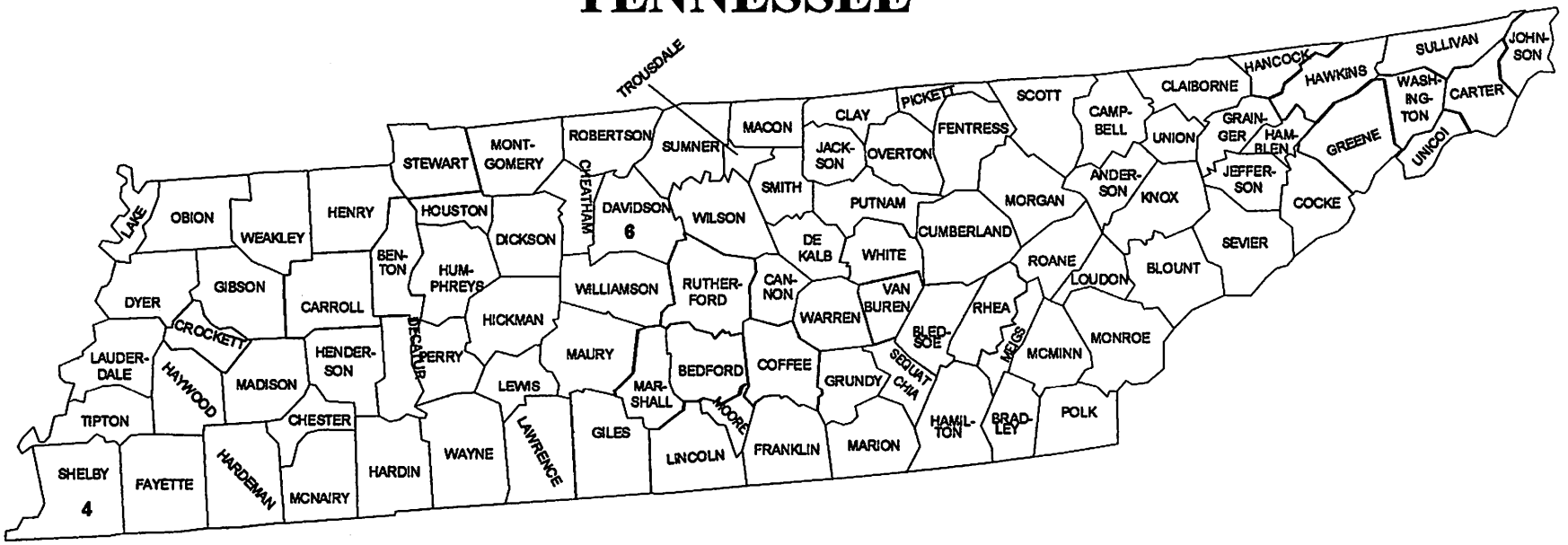
⋯ = Multiple gypsy moth catches in trap(s)

* = New County Record

Known Infestations

Campbell	Scott
Cumberland	Sevier
Monroe	

COOPERATIVE EXOTIC BARK BEETLE SURVEY
FY 2001
TRAPS/COUNTY
TENNESSEE

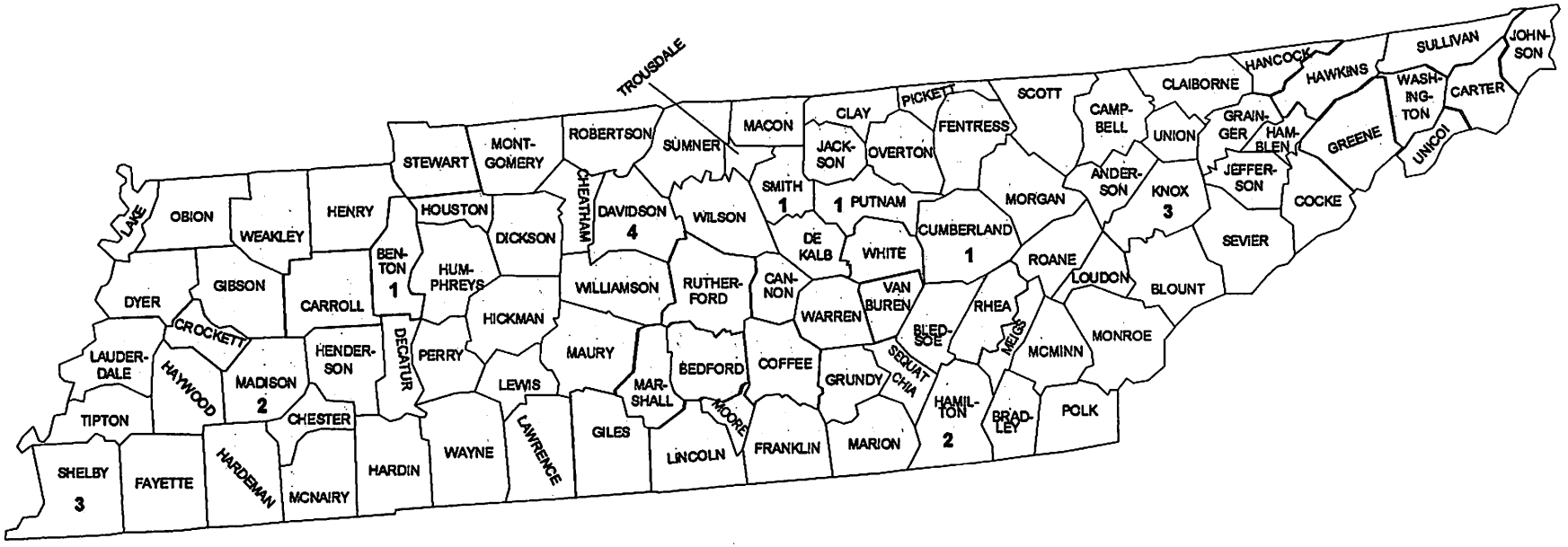


Ips typographus & Hylurgus ligniperda

Cooperators consist of USDA-APHIS,
& University of Tennessee Extension

No exiotic Beetles were found

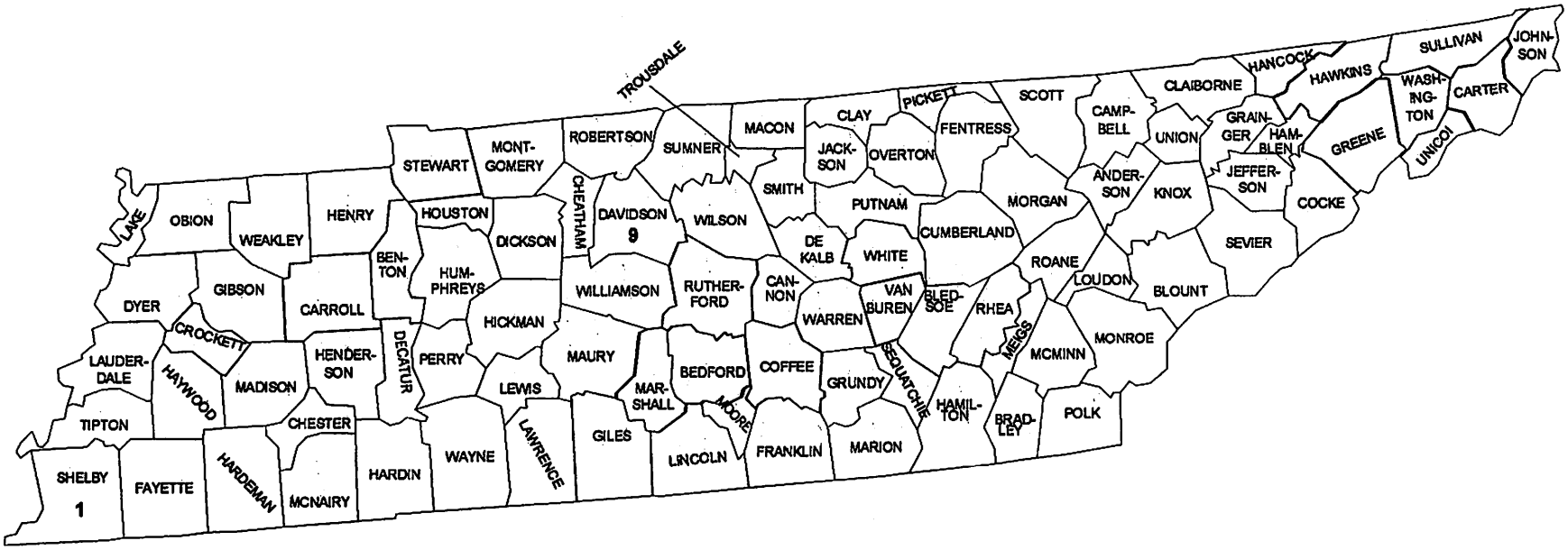
COOPERATIVE AFRICANIZED HONEY BEE SURVEY
FY 2001
TRAPS OPERATED
TENNESSEE



Cooperators consist of USDA-APHIS,
Tennessee Department of Agriculture

All Traps Negative for Africanized Honeybees

COOPERATIVE ASIAN LONGHORNED BEETLE SURVEY
FY 2001
SITES SURVEYED
TENNESSEE



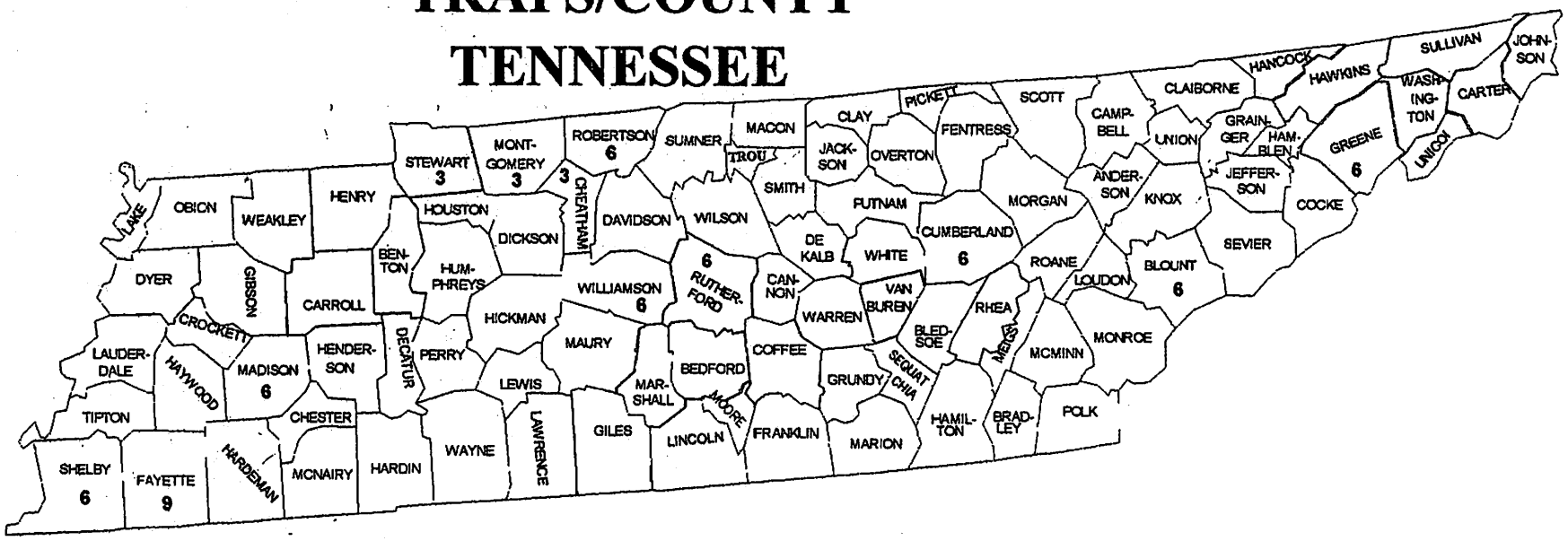
Cooperators consist of USDA-APHIS, &
Tennessee Department of Agriculture

COOPERATIVE AFRICAN COTTON LEAFWORM, EGYPTIAN COTTON LEAFWORM, & FALSE CODDLING MOTH SURVEY

FY 2001

TRAPS/COUNTY

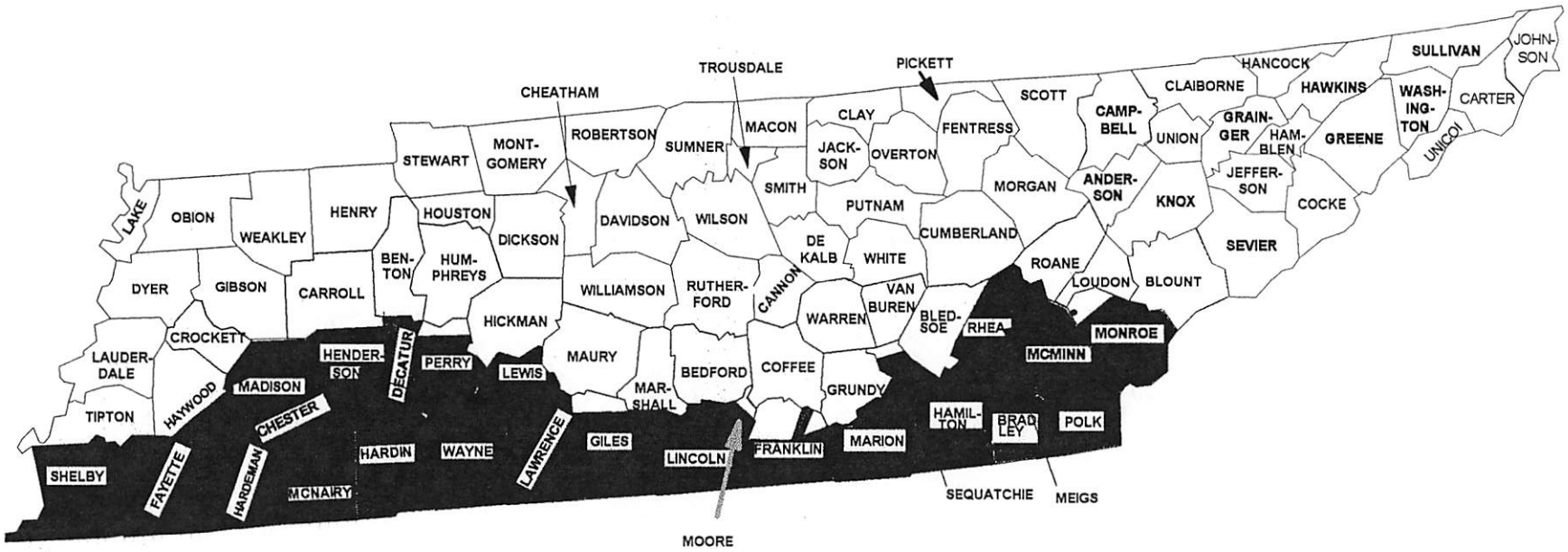
TENNESSEE



Each number represents the number of traps placed

Cooperators consist of USDA-APHIS,
& University of Tennessee Extension

2001
TENNESSEE
IFA Quarantine



= Imported Fire Ant Regulated Areas

revised7-1-2001

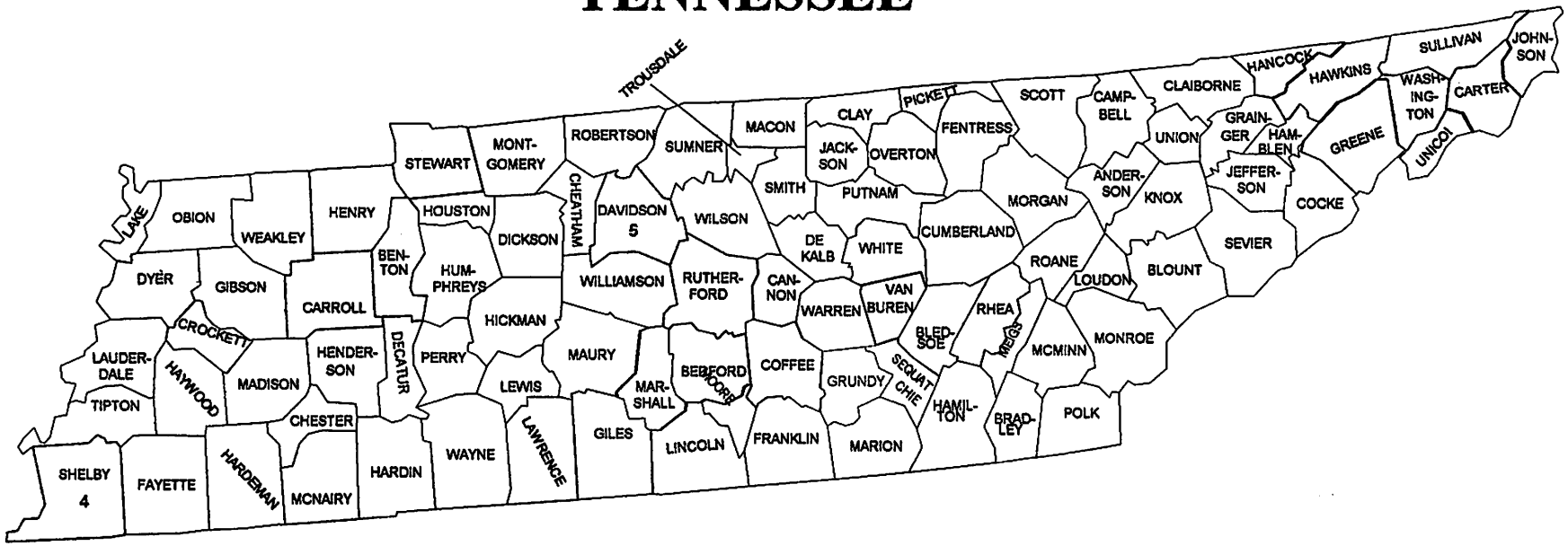
COOPERATIVE SURVEY

PINE SHOOT BEETLE - *Tomicus piniperda*

FY 2001

TRAPS/COUNTY

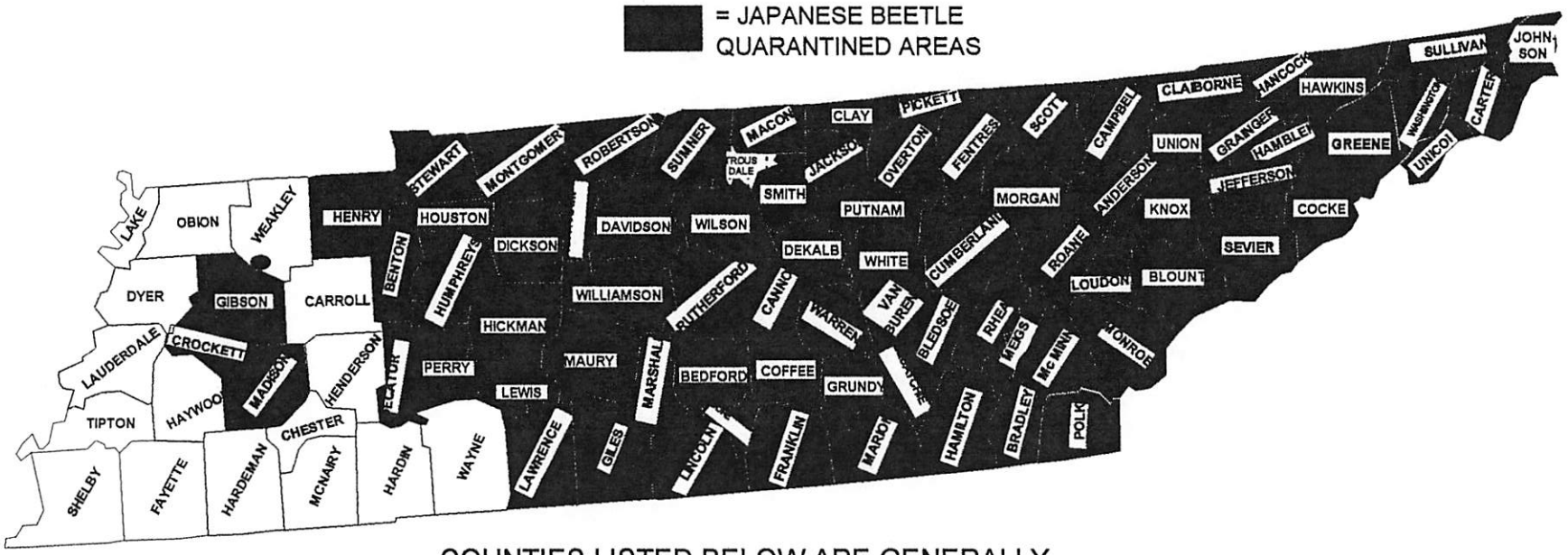
TENNESSEE



All traps negative for Pine Shoot Beetle

Cooperators consist of USDA-APHIS,
& University of Tennessee Extension

TENNESSEE MAP INDICATING THE DISTRIBUTION OF JAPANESE BEETLE INFESTED AREA 2001

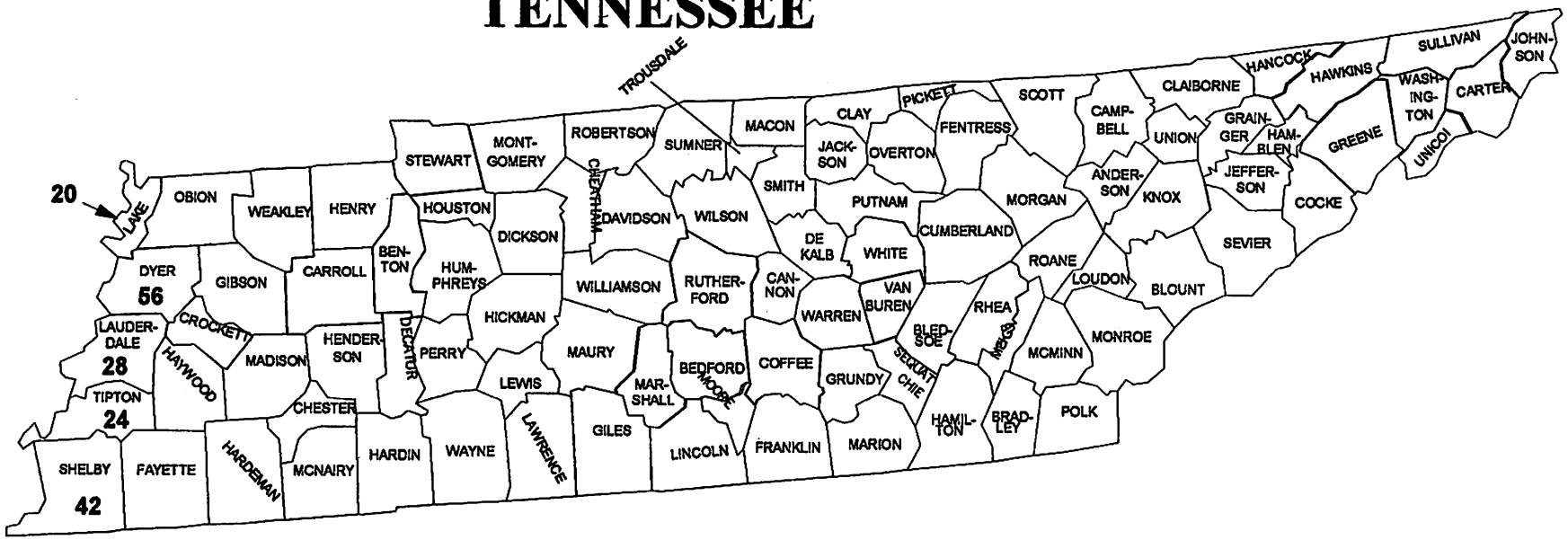


COUNTIES LISTED BELOW ARE GENERALLY INFESTED WITH JAPANESE BEETLE

ANDERSON	CARTER	DAVIDSON	GREENE	JACKSON	MADISON	OVERTON	SCOTT	UNICOI
BEDFORD	CHEATHAM	DECATUR	GRUNDY	JEFFERSON	MARION	PERRY	SEQUATCHIE	UNION
BENTON	CLAIBORNE	DEKALB	HAMBLEN	JOHNSON	MARSHALL	PICKETT	SEVIER	VAN BUREN
BLEDSOE	CLAY	DICKSON	HAMILTON	KNOX	MAURY	POLK	SMITH	WARREN
BLOUNT	COCKE	FENTRESS	HANCOCK	LAWRENCE	MEIGS	PUTNAM	STEWART	WASHINGTON
BRADLEY	COFFEE	FRANKLIN	HAWKINS	LEWIS	MONROE	RHEA	SULLIVAN	WHITE
CAMPBELL	CROCKETT	GIBSON	HENRY	LINCOLN	MONTGOMERY	ROANE	SUMNER	WILLIAMSON
CANNON	CUMBERLAND	GILES	HICKMAN	LOUDON	MOORE	ROBERTSON	TROUSDALE	WILSON
		GRAINGER	HOUSTON	McMINN	MORGAN	RUTHERFORD		
			HUMPHREYS	MACON				

A Portion of - Weakley County - the city limits of Greenfield

COOPERATIVE PINK BOLLWORM SURVEY
FY 2001
TRAPS/COUNTY
TENNESSEE



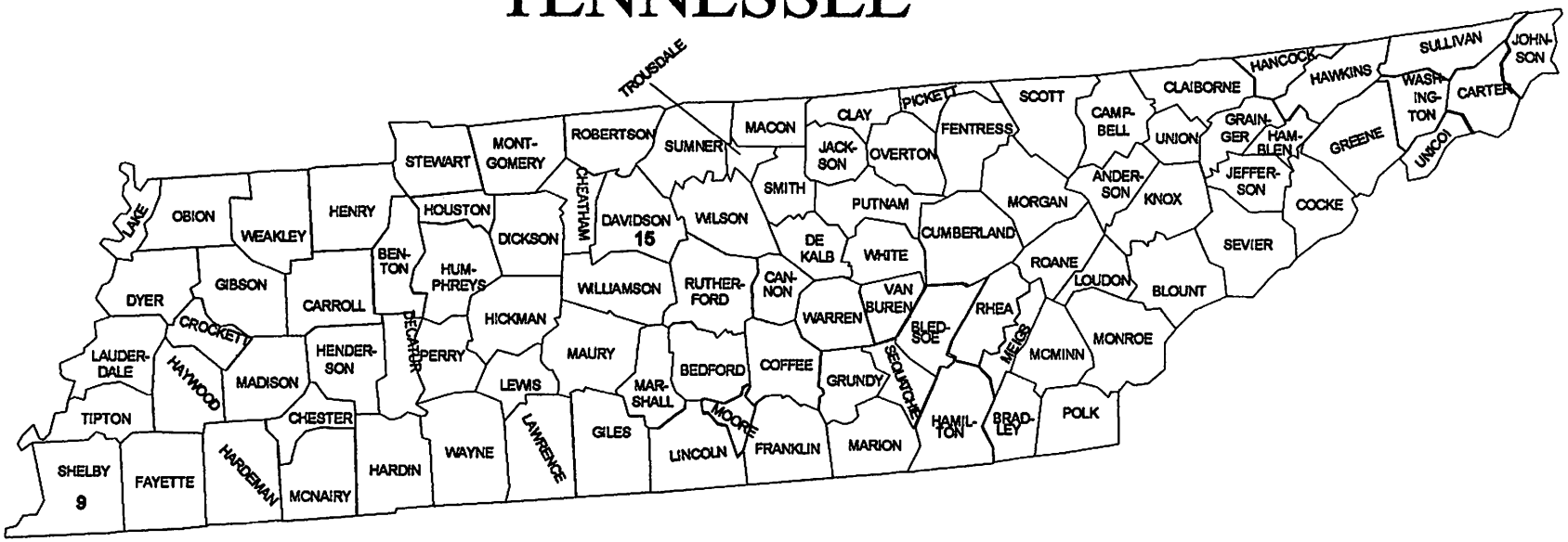
Each number represents the number of traps placed for detection of:

PINK BOLLWORM - *Pectinophora gossypiella*

All traps negative for Pink Bollworm

Cooperators consist of USDA-APHIS,
& Tennessee Department of Agriculture

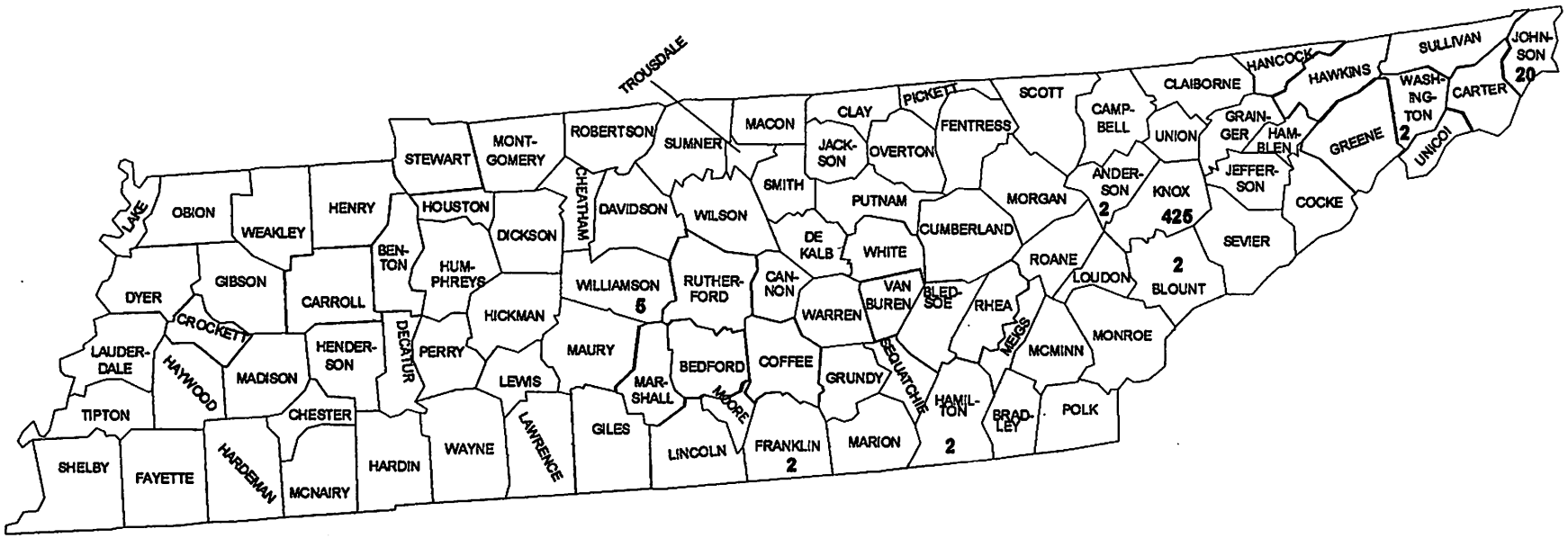
COOPERATIVE KHAPRA BEETLE SURVEY
FY 2001
TRAPS PLACED
TENNESSEE



All traps negative for Khapra Beetle

USDA-APHIS PLACED ALL TRAPS

COOPERATIVE SMALL HIVE BEETLE SURVEY FY 2001
SITES SURVEYED
TENNESSEE



No Small Hive Beetle were found in survey

Cooperators consist of USDA-APHIS, &
University of Tennessee Extension

HISTORICAL NOTES

Presidents of the Tennessee Entomological Society (1973 - Present)

President	Term	Affiliation
Mendell Snodgrass	'73 - '74	USDA
Omar Smith	'74 - '75	Memphis State University
Don Clements	'75 - '76	Cook's Pest Control
Gary Lentz	'76 - '77	University of Tennessee
Chester Gordon	'77 - '78	Tenn. Dept. of Agriculture.
Gene Burgess	'78 - '79	University of Tennessee
Reid Gerhardt	'79 - '80	University of Tennessee
Harold Bancroft	'80 - '81	Memphis State University
Joe Dunn	'81 - '82	American Cyanamid Company
Bill Van Landingha	'82 - '83	Tenn. Dept. of Agriculture
Carl Brown	'83 - '84	Memphis State University
Charles Pless	'84 - '85	University of Tennessee
Michael E. Cooper	'85 - '86	Tenn. Dept. of Agriculture
Elmo Shipp	'86 - '87	Mobay
Bill Shamiyeh	'87 - '88	University of Tennessee
Harvey Barton	'88 - '89	Arkansas. State University
Harry Williams	'89 - '90	University of Tennessee
Bruce Kauffman	'90 - '91	Tenn. Dept. of Agriculture
Jamie Yanes, Jr.	'91 - '92	American Cyanamid Company
Jerome Grant	'92 - '93	University of Tennessee
Russ Patrick	'93 - '94	University of Tennessee
Lynn Snodderly	'94 - '95	Tenn. Dept. of Agriculture
Paris Lambdin	'95 - '96	University of Tennessee
Frank Hale	'96 - '97	University of Tennessee
Steve Murphree	'97 - '98	Belmont University
Clete Youmans	'98 - '99	American Cyanamid
Catharine Mannion	'99 - '00	TN Nursery Crop Res. Cnt.
Gray Haun	'00 - '01	Tenn. Dept. of Agriculture

Secretary-Treasurers of the Tennessee Entomological Society (1973 - Present)

Secretary-Treasurer	Term	Affiliation
Jimmy White	'73 - '76	Tenn. Dept. of Agriculture
Harold Bancroft	'76 - '79	Memphis State University
Lyle Klostermeyer	'79 - '82	University of Tennessee
Bill Shamiyeh	'82 - '85	University of Tennessee
Richard Caron	'85 - '91	University of Tennessee

Secretaries of the Tennessee Entomological Society (1991 - Present)

Gary Lentz	'91 - '93	University of Tennessee
Gary Lentz	'93 - '01	University of Tennessee

Treasurers of the Tennessee Entomological Society (1991 - present)

Treasurer	Term	Affiliation
Harvey Barton	'91 - '94	Arkansas State University
Harvey Barton	'94 - '97	Arkansas State University
Steve Powell	'97 - '01	TN Dept. of Agriculture

Editors of the Tennessee Entomological Society (1991 - present)

Editor	Term	Affiliation
Gray Haun	'91 - '99	TN Dept. of Agriculture
Lynn Snodderly	'00 - '01	TN Dept. of Agriculture

Board of Directors Members at Large

Member	Term	Affiliation
Gary Lentz	'87 - '88	University of Tennessee
Blake Bevill	'87 - '88	Arkansas State University
Michael E. Cooper	'88 - '89	TN Dept. Agriculture
Jay P. Avery	'88 - '89	University of Tennessee
Joe Dunn	'89 - '90	American Cyanamid Company
Charles Pless	'89 - '90	University of Tennessee
Paris Lambdin	'90 - '91	University of Tennessee
Jim Keener	'90 - '91	TN Dept. of Agriculture
Steve Powell	'91 - '92	TN Dept. of Agriculture
Lee Greer	'91 - '92	Valent
Alan Hopkins	'92 - '93	Miles, Inc.
Donald Ourth	'92 - '93	University of Memphis
Mark Carder	'93 - '94	University of Tennessee
Rich Emerson	'93 - '94	TN Dept. of Agriculture
Ray Nabors	'94 - '95	Univ. of MO
Alan Hopkins	'94 - '95	Miles, Inc.
Steve Powell	'95 - '96	TN Dept. of Agriculture

Jim Bogard	'95 - '96	TN Dept of Agriculture (Retired)
Hans Chaudhary	'96 - '97	TN Dept. of Agriculture
Cletus Youmans	'96 - '97	American Cyanamid
Larry Latson	'97 - '98	David Lipscomb University
Catharine Mannion	'97 - '98	TN State University
Karen Vail	'98 - '99	University of TN
Roberto Pereira	'98 - '99	University of TN
Jim Keener	'00 - '01	TDA, Division of Forestry
Lee Greer	'00 - '01	Valent

Historians of the Tennessee Entomological Society (1973 - Present)

Historian	Term	Affiliation
Charles Pless	'73 - '76	Univ. of Tennessee
Herb Morgan	'76 - '79	USDA
Mendell Snodgrass	'79 - '82	USDA
Russ Patrick	'82 - '87	Univ. of Tennessee
Russ Patrick	'87 - '92	Univ. of Tennessee
Harry Williams	'92 - '01	Univ. of Tennessee (retired)

Honorary Members of the Tennessee Entomological Society (1982 - Present)

Honorary Member	Year	Affiliation
Jimmy White	1982	Tenn. Dept. of Agric.
Mendell Snodgrass	1983	USDA
Carl Brown	1985	Memphis State
Myrtice Snodgrass	1985	Knoxville, TN
John A. Hammett	1987	Tenn. Dept. of Agric.
Joe C. Dunn	1990	American Cyanamid
Harry Williams	1997	Univ. of TN (retired)

Howard Bruer Award (est. 1975)
Recipients of the Tennessee Entomological Society (1975 - Present)

Recipient	Year	Location
Whitney Eckler	1975	Memphis, TN
Joe Martin	1976	Bolivar, TN
Bryan Peters	1977	College Grove, TN
Tidus Pollard	1978	Huron, TN

John Bentley	1979	??
Melissa Hart	1980	Watertown, TN
Gary Miller	1981	Knoxville, TN
Harold Glass	1982	Knoxville, TN
-----	1983	(No award given)
-----	1984	(No award given)
Penny Thompson	1985	Davidson County
Matthew Fumich	1986	Munford, TN
Christie Greer	1987	Greene Co.
Dottie Hodges	1988	Hamblen Co.
-----	1989	(No award given)
Tim Gentry	1990	Woodbury, TN
Jennifer Hartsell	1991	Hamblen Co.
Jessica Taylor	1992	Lincoln Co.
Jennifer Lenter	1993	Fayetteville Co.
Jeremy Smith	1994	Savannah Co.
George Carroll	1995	Anderson Co.
Stacy Milhahn	1996	Lincoln Co
Nancy Warden	1997	Marshall Co.
Denise Byrum	1998	Moore Co.
James Johnson	1999	Shelby Co.
Wade Black	2000	Bolivar, TN

Outstanding Entomologist (Tennessee Entomologist of the Year) Award (est. 1981) Recipients of the Tennessee Entomological Society (1981 - Present)

Recipient	Year	Affiliation
Myron Smith	1981	Hill Smith Pest Control
Harry Williams	1985	Univ. of Tennessee
John A. Hammett	1987	Tenn. Dept. of Agric.
Joe C. Dunn	1991	American Cyanamid

Richard E. Caron Outstanding Entomologist Award

Recipient	Year	Affiliation
Harry Williams	1995	Univ. of TN (Retired)
Harvey Barton	1996	Arkansas State Univ. (Retired)
Carroll Southards	1997	Univ. of TN (Retired)
Harold Bancroft	2000	Univ. of Memphis

Graduate Student Award (est. 1986) Recipients of the Tennessee Entomological Society (1986 - Present)

Recipient	Year	Location
Jay Avery	1986	Knoxville, TN
Laura Rogers	1987	Knoxville, TN
Jason Oliver	1988	Knoxville, TN
Steve D. Powell	1989	Knoxville, TN
Robert C. Brown	1990	Knoxville, TN
Donald L. Sudbrink, Jr.	1991	Knoxville, TN
Deborah Landau	1992	Knoxville, TN
Deanna Colby	1993	Knoxville, TN
Lee Holt	1994	Knoxville, TN
Kenneth Copley	1995	Knoxville, TN
Dina Roberts	1996	Memphis, TN
Bryan Hed	1997	Knoxville, TN
Gary Moughler	1998	Knoxville, TN
Andrew Beld	1999	Nashville, TN
Lacey McNally	2000	Baton Rouge, LA
Ken Davenport	2001	Clarksville, TN

1. Dates ('00), ('01) refer to last meeting attendance or last dues payment. ($5.00 Regular, $1.00 Student, $25.00 Sustaining/Corporate).

2. H = Honorary Member

TENNESSEE ENTOMOLOGICAL SOCIETY

MEMBERSHIP LIST

OCTOBER 2001

'00 Harold Bancroft
Dept. of Biology
University of Memphis
Memphis, TN 38152
(901) 678-2592
Fax (901) 678-2592
bancroft@memphis.edu

'00 Melvin Beck
Dept. of Biology
University of Memphis
Memphis, TN 38152
(901) 678-2970
FAX (901) 678-4746
mbeck@memphis.edu

'00 Andrew (Drew) Belk
Dept. of Biology
Vanderbilt University
Nashville, TN 37212
(615) 321-3167
andrew.m.beld@vanderbilt.edu

'00 Charles J. Biggers
Dept. of Biology
University of Memphis
Memphis, TN 38152
(901) 678-4468
Fax (901) 678-4746
cbiggers@memphis.edu

'00 James B. Bogard
3965 Keeley Drive
Nashville, TN 37211
(615) 832-6759

'01 Robert Brinkman
2648 Rollow Lane
Clarksville, TN 37043
(931) 801-2122
brinky@hotmail.com

H Carl D. Brown
Dept. of Biology
University of Memphis
Memphis, TN 38152
(901) 678-2963
Fax (901) 678-4746

'00 Katrina C. Burns
3640 Pleasant Hollow Dr. Apt 012
Memphis, Tn 38115
(901) 365-1761
FAX (901) 544-0375
bk1trina@yahoo.com

'01 Willodean D.S. Burton
Dept. of Biology
Austin Peay State University
P.O. Box 4718
Clarksville, TN 37044
(931) 221-7778
FAX (931) 221-6323
Burtonw@apsu.edu

'01 Mark Carder
U.S. Army
CMR 415 Box 3153
APO AE 09114
011-49-9641-925725
bugthor@aol.com

'01 David L. Cook
5201 Marchant Drive
Nashville, TN 37211-5112
(615) 832-6802
FAX (615) 781-2568
DLCOOK@ext1.ag.utk.edu

'01 Kenneth J. Copley
6355 Newstone Drive
Bartlett, TN 38135
(901) 380-2024

'01 Ken Davenport
1016 Swift Drive
Clarksville, TN 37040
(931) 551-4087
darwin--Ken@hotmail.com

H Joe C. Dunn
724 Brownlee Drive
Nashville, TN 37205
(615) 352-5669

'01 Susan Fletcher
371 Patrick Street Apt 10-F
Clarksville, TN 37040
(931) 221-5247
susanpeach@hotmail.com

'00 Rick Emerson
605 Airways Blvd.
Jackson, TN 38301
(901) 423-5647
FAX (901) 426-0749

'01 Reid R. Gerhardt
Ent. and Plant Pathology
Univ. of TN, P.O. Box 1071
Knoxville, TN 37901-1071
(865) 974-7135
(865) 974-4744 (FAX)
rgerhard@utk.edu

'01 Jerome F. Grant
Ent. and Plant Pathology
Univ. of TN, P.O. Box 1071
Knoxville, TN 37901-1071
(865) 974-7135
FAX (865) 974-4744
jgrant@utk.edu

'01 Frank Hale
5201 Marchant Drive
Nashville, TN 37211-5112
(615) 832-6802
FAX (615) 781-2568
fahale@utk.edu

'01 Steven W. Hamilton
Dept. of Biology
Austin Peay St. Univ.
Clarksville, TN 37044
(931) 221-7783
FAX (931) 221-6372
hamiltonsw@apsu.edu

'01 Walker G. (Gray) Haun
TN Dept. of Ag.
Div. of Regulatory Services
PO Box 40627 Melrose Sta.
Nashville, TN 37204
(615) 837-5338
FAX (615) 837-5246
whaun@mail.state.tn.us

'00 Lee Holt
3341 Southern Ave.
Memphis, TN 38111
(901) 458-3723
FAX (901) 344-2324
lnl@mailcityasia.com

'01 Rebecca Houtman
240 Timberlake Dr. Apt B
Clarksville, TN 37043
(931) 221-7399
rhoutman@chartes.net

'01 Subi Jacob
Ent. and Plant Pathology
The Univ. of TN, P.O. Box 1071
Knoxville, TN 37901-1071
(865) 974-7135
sjacob@utk.edu

'00 Carl C. Jones
Ent. and Plant Pathology
The Univ. of TN, P.O. Box 1071
Knoxville, TN 37901-1071
(865) 974-7135
FAX (865) 974-4744
Cjones17@utk.edu

'00 Jim Keener
TDA, Div. of Plant Industries
3211 Alcoa Hwy
Knoxville, TN 37920
(865) 594-6098
FAX (865) 594-8900
JAKeener@mail.st.tn.us

'01 Dana M. Keeton
605 Airways Blvd.
Jackson, TN 38301
(731) 425-4788
keetonswallowtail@yahoo.com

'00 Lacey McNally
Veterinary Science
Louisiana State University
Baton Rouge, LA 70808
(225) 766-6198
lacey-mcnally@hotmail.com

'00 Brian Leckie
Ent. and Plant Pathology
The Univ. of TN, P.O. Box 1071
Knoxville, TN 37901-1071
(865) 974-7135
bleckie@utk.edu

'01 Gary L. Lentz
West Tennessee Experiment St.
605 Airways Blvd.
Jackson, TN 38301
(731) 424-1643
FAX (731) 425-4760
glentz@utk.edu

'00 Chris McAllister
Ent. and Plant Pathology
The Univ. of TN
P.O. Box 1071
Knoxville, TN 37901-1071
(865) 974-7135
cmcallis@utk.edu

'01 Raymond E. McDonnell
TDA, Div. of Plant Industries
3211 Alcoa Hwy
Knoxville, TN 37920
(865) 594-6098
FAX (865) 594-8900
mcdonnel@usit.net

'01 James P. Moore
P.O. Box 724
Omaha, NE 68101-0724
(402) 221-7689
FAX (402) 339-0975
galileo2@earthlink.net

'01 C. Steven Murphree
Dept. of Biology
Belmont University
1900 Belmont Blvd.
Nashville, TN 37212-3757
(615) 460-6221
FAX (615) 460-5458
murphrees@mail.belmont.edu

'01 Harry Newkirk
US Army Corps of Engineers
Percy Priest Lake
3737 Bell Road
Nashville, TN 37214-2660
(615) 369-7541
FAX (615) 369-7541
harry.1.newkirk@usace.army.mil

'00 Jason Oliver
TN Nursery Crop Res. Stat.
472 Cadillac Lane
McMinnville, TN 37110
(931) 668-3572
FAX (931) 668-3134
jasoliver@blomand.net

'00 Donald D. Ourth
Dept. Microbiology &
Molecular Cell Sci.
Univ. Of Memphis
Memphis, TN 38152
(901) 678-2950
ddourth@mem.edu

'00 Michael S. Parker
The Univ. of Memphis
Dept. Of Microbiology &
Molecular Cell Sciences
Memphis, TN 38152
(901) 678-2955
michaelsparker@msn.com

'01 Charles Patrick
605 Airways Blvd.
Jackson, TN 38301
(731) 425-4718
FAX (731) 425-4720
russ1212@utk.edu

'00 Roberto Pereira
Research Entomologist
USDA-ARS, CMAVE
1600 SW 23rd Drive
Gainesville, Fl 32604

'01 Steve D. Powell
Ellington Agricultural Center
Div. of Regulatory Services
Box 40627, Melrose Station
Nashville, TN 37204
(615) 837-5139
FAX (615) 837-5246
spowell@mail.state.tn.us

'01 Joseph R. Schiller
Dept. of Biology.
Austin Peay St. University
Clarksville, TN 37044
(931) 221-7249
schillerj@apsu.edu

'01 John A. Skinner
Ent. and Plant Pathology
The Univ. of TN
P.O. Box 1071
Knoxville, TN 37901-1071
(865) 974-7135
FAX (865) 974-8868
jskinner@utk.edu

'00 Lynn Snodderly
TDA, Div. of Regulatory Services
3211 Alcoa Hwy
Knoxville, TN 37920
(865) 594-6098
FAX (865) 594-8900
bluedot@vsit.net

H Mendell E. Snodgrass, Sr.
228 Pat Road
Knoxville, TN 37922
(423) 966-7259

'00 William F. Stone
195 McAfee Road
Rossville, GA 30741-2901
(706) 866-7526

'01 Donald L. Sudbrink, Jr.
Mississippi State University
Delta Research & Extension Cntr
P.O. Box 197
Stoneville, MS 38776
(662) 686-9311
FAX (662) 686-7336
sudbrink@drec.msstate.edu

'01 Karen Vail
Ent. & Plant Path.
University of TN
218 Plant Sciences Bldg
Knoxville, TN 37996
(865) 974-7135
FAX (865) 974-8343
kvail@utk.edu

'00 Nancy VanTol
427 Arlington Ave.
Jackson, TN 38301
(901) 427-8438
nvantol@utk,edu

'01 Charles Watson, Jr
1564 Wessels Dr. #6
Fort Wright, KY 41011
(865) 491-8401
procladius@aol.com

H Jimmy R. White
Rt. 5, Box 300
Brownsville, TN 38012
(901) 772-1919

'01 Scott Williamson
2991 Rawlings Road
Woodlawn, TN 37191
(931) 906-6760
spw54@earthlink.net

H Harry E. Williams
1005 Francis Road
Knoxville, TN 37909
(865) 690-3069

Sustaining Members ('01)

Clete Youmans
BASF
1875 Viar Rd.
Dyersburg, TN 38024
(731) 287-1789
FAX (731) 287-1788
youmanc@basf.com

Application for Membership in the

TENNESSEE ENTOMOLOGICAL SOCIETY

I (we), herewith, submit this application for membership in the Tennessee Entomological Society. Society pins are available to members for $10.00.

PLEASE PRINT

Name of Prospective Member_____

Affiliation_____

Address_____ Zip Code _____

Phone Number Area Code ( ) _____

FAX Number Area Code ( ) _____

email address _____

Occupation_____

Please Check

__ Annual Dues $5.00

__ Society Pin $10.00

__ Annual Due for Students $1.00

Sustaining Member Dues $25.00

Amount Enclosed _ _____

Please Remit to:

Dr. Gary Lentz
Dept. Entomology and Plant Pathology
605 Airways Blvd.
West Tennessee Experiment Station
Jackson, TN 38301