Monday, August 4th, 2008

1:00-3:30 PM

SPB Working Group

Organizer: Stephen Clarke

Meeting notes courtesy of Susan Stanley.

Southwide SPB Database

Tony Courter, working with the Forest Health Technology Enterprise Team (FHTET), presented a demonstration of the SPB Data Portal. The Portal is currently being tested for data entry via the internet.

Data entry: Many fields have drop down menus to expedite data entry. Some also have type-ahead functionality. Real-time data validation is enabled, and user receives a message if invalid data is entered.

Universal Upload Utility: As each state collects data differently, the Portal will have a universal upload utility. The user will create a .csv (comma-delimited) file from data in a spreadsheet. Using the upload utility, the user can map and match their data fields to the values in the portal and the data will be uploaded. 75 data fields are established in the Portal. Error messages will pop up if data is entered where it does not fit. There also will be customized data entry interfaces for each state, and the interfaces for Florida and Texas have been developed.

Core values: The seven core values are spot ID, detection month, detection year, county, acres, total value, and total volume. These fields must be filled for each infestation. If not entered, the values can be calculated from other data entries. Timber Mart South data will be used to calculate values. Error messages will pop up if core value fields are not filled. The public will only be able to see the core values for the state and private infestations. All data on federal lands will be available.

Mapping: Mapping utility can be filtered by state and/or date. User can change the background with imagery of their choice. Federal and state spots can be displayed differently and separately. Working on the ability to display the data over Google Earth. Can limit the ability to zoom down to individual spots to protect landowners rights.

Reports: Program will create an exception report to display what infestations were not uploaded. A standard custom report has yet to be defined.

Decisions: Latitude and longitude will become core values.

Update: submitted by Tony Courter, 8/19/08

Core values are Latitude (decimal degrees), Longitude (decimal degrees), Spot number, Year, Detection Month, State, County, Final acres, Total volume, and Total value.

The default for Owner_Type is State.

Year and month are not required if user inputs a detection date. Year is stored as four digits. Preferred date format is month/day/year (i.e. 8/30/2008), but can be entered as Aug/30/2008 or Aug-30-2008.

FHM Mortality Map Standards

Dale Starkey (FHP, Pineville) led a discussion on mapping standards. There are several issues that need to be resolved:

Area surveyed. Concern that whole counties were displayed as surveyed when only a partial survey was conducted. Also, some areas are monitored by foot or car and thus do not show up on the survey map. Another concern is that blank areas on the maps could represent areas with no SPB or areas that were not surveyed. Need a consistent reporting approach for area surveyed. Potential solutions: only submit area actually viewed for the aerial survey map. This can done using the plane's flight lines captured through GPS. Areas viewed and monitored from the ground could be submitted as a separate layer. May need three layers: 1) Area surveyed = areas surveyed from the air and the ground; 2) area covered = other areas examined during normal course of work but not part of an official survey; and 3) area not surveyed.

Phantom spots. Some states do not conduct complete aerial surveys. They generate SPB spot data for the areas not surveyed using data from the areas surveyed. These spots previously were randomly distributed throughout counties in mapping efforts. The SPB Data Portal can handle expansion factors some states use to generate these phantom spots. FHTET does not want these spots included on the National maps. They want only spots actually detected and areas actually surveyed. Need to ensure that all infestations on National maps fall within the boundaries of the areas surveyed or viewed. Potential solutions: only report spots actually detected on the National maps. States can generate maps of infestations using the expansion factors for their own use and to estimate number of infestations per acres of host type.

Duplication of spots. If states and the feds make aerial detection flights, there is the potential that they could report the same spots. Also, some spots detected on a flight may get reported as new during a subsequent flight. Solution: Need coordination between agencies on detection flights. With the shortage of planes, agencies should work together to make detection flights. The use of digital aerial sketch-mapping should eliminate double counting, as the surveyors can have infestations detected previously loaded on their backdrops.

Update by Dale Starkey on 8/20/2008.

Report area surveyed=area viewed by utilizing flight lines. May create additional layer that illustrates area covered or area monitored.

States can report phantom spots generated by expansion factors to display spot numbers/host acres. These spots should not be included on national Maps or entered in the Data Portal.

States and feds must work closely to eliminate duplication. The use of final total acres in the Portal should help clear up concerns with double counting of infestations during repeated flights/

Southern Pine Beetle dispersal

John Reeve (Southern Illinois University)

John reported he has a project examining the movement of SPB between populations. They are looking at the genetic diversity within nearby populations and between distant populations. Appears to be a fair amount of dispersal within Mississippi.

Update on Systemic Insecticide Injection Research and Product Registration

Don Grosman (TFS, Lufkin)

The systemic insecticides emamectin benzoate and fipronil have been proven effective for protection of cone crops. In 2004 tested their ability to prevent *Ips* attacks on standing trees. Both products proved effective in reducing colonization and mortality of trees. Initiated tests against spruce beetle in UT and against SPB in MS and AL. Initial results look promising. The problem is trees are baited for 12 weeks. Treatments prevent SPB colonization, but do not prevent inoculation with blue stain fungi.

Syngenta hoped to have product registered by July, but the EPA decided a full evaluation of the new formulation was required. Process of registration = 18 months, so registration may happen in July 09.

Emamectin benzoate (EB) used against emerald ash borer (EAB) in MI, OH, IN, and WV. Currently protect ash trees against EAB.

EB has a long residual effect. 80% reduction in insect activity over 6 years with one injection.

Bark beetle – two year study in CA (Western pine beetle), lost 1 tree out of 35 injected.

Systemics have advantage over spray applications of no drift. Takes about 10 minutes to get into tree under good conditions, so treatments take longer than sprays.

Methyl bromide – phased out.

Economic Benefits of SPB Prevention

John Nowak (FHP, Asheville)

The SPB session Wednesday a.m. will include presentation on economic analysis of the prevention program. A two-year project was funded with Univ. of FL for the analysis of SPB prevention work. Several other states subscribed: VA, SC, TX.
Landowner contact information -Univ. of FL contacted them and asked if they thinned and how they felt about the program?

Plan to look at long term benefits of the program and whether it causes decrease in impacts of SPB outbreaks. Have funded $650,000-700,000 for prevention treatments across South. Need analysis of the effectiveness of treatments, where treatments occurred, and baseline data of stand conditions before and after treatment. Last year did not get much positive feedback. Collect baseline data (data is available); matter of doing it, as a group of state cooperators?

Could have prevention database. Could examine whether SPB hazard decreases through time. Would add support for the program. Some landowners may be hesitant to have their data public.

Economic Benefits of SPB Suppression

Stephen Clarke (FHP, Lufkin)

Several problems with current state of economic analyses of impacts of SPB.

1) the website on History of SPB in the southeastern US was taken down due to a miscalculation of the federal numbers. Figures were off by a factor of 100. John Pye will fix the error and get the site back up.
2) Previous analyses have underestimated the impacts of SPB. In areas with no suppression, they generally have estimated losses at 2-3 times the losses of areas with active suppression. However, actual data indicate losses of 40-50% of susceptible host type with out suppression vs. only 2-3% in areas with suppression.
3) Analyses have also only considered cut-and-removed infestations vs. all others, so cut-and-leave spots are lumped with unsuppressed infestations. Need an analysis that calculates the economic losses of unsuppressed vs. suppressed infestations.

SPB Strategic Plans

Stephen Clarke (FHP, Lufkin)

Southern pine beetle activity is low across south, so now is the time to work on SPB strategic plans and environmental assessments. Many professionals have retired since the last outbreak, and their replacements must be prepared for the next outbreak.

We are trying to institute a standardized flagging plan. Everyone would utilize the same colors.
Wes Nettleton indicated this is a National Forest issue.

SPB Internet Control Center

Scott Salom (Virginia Tech)

This website is housed at VA Tech (webmaster- t.bellinger@vt.edu). I'd like to extend an invitation for everyone here to become a member. We have a fair number of you as members already and need you to update your contact information. If you'd like to add research articles, feel free to include them. We have 6-12 of the most commonly asked questions on site that homeowners and general public can access. If there are other questions you're continually addressing and tired of answering, send them to Tree to add under "Frequently Asked Questions"
Database of Research Projects website - If you have a project that you don't see listed here or anything else you feel would be informative to the community of people visiting the website, please let us know.

Steve Clarke - when someone accesses "Get help/Post a Question" on website, suggest requesting that they enter their location (city or state), the forest type (urban vs. forest), number of affected trees, etc.
Scott will attempt to facilitate communication with users.

Also, when someone updates or adds references, it would be helpful to include link to a PDF.

SPB Encyclopedia

Robert Coulson (TX A&M)

*display of graphic illustrating current state of the SPB encyclopedia

Kier Klepzig and others are working to update Thatcher et al. (1980), The Southern Pine Beetle. The new version will include the current state of SPB knowledge, and can be updated in future years. Five major areas are listed with subtopics. Technically knowledgeable individuals were tasked to write chapters for the encyclopedia. Ron Billings is a substantial contributor of photographs and technical knowledge. When we get all these topics complete, we'll have an outstanding quality product.
The SPB Encyclopedia will be a part of the Forest Encyclopedia Network (FEN).

Near Future:

1) Senior FEN Editor has retired.
2) FEN Subject Editors will be meeting in mid-August with new SO Director Mike Rauscher. Jimmy Reaves to be updated on the future of FEN.

Behind schedule:

- When manuscript comes into our office, we will review and ensure that the content is complete.
- Amy Tomshaw (SRS) will put in format so manuscript is all uniform.
- Will send manuscript back to individual authors to respond to comments made by the editors.
- The manuscript then will go out for peer review.

Computer programs and editors will provide links within the on-line version.
FEN editors have supplied instructions on how to format manuscripts for the encyclopedia.

John Pye is preparing an encyclopedia on "Threats", i.e. Proceedings from a conference held in Colorado in 2006.

Update by Bob Coulson, March 2009.

1. The plan for the SPB Encyclopedia has changed substantially since the SFIWC. The future of FEN (the Forest Encyclopedia Network) is not clear. Some effort has been made to develop a strategic plan, but it has not been completed. The FEN is without leadership now: Mike Rauscher has resigned and has not been replaced.
2. We decided not to get caught up in this "Jack Pot" and are publishing the SPB Encyclopedia as a hard copy volume. The approach is to use a word processing product (EndDesign) and produce the book "in house."
3. Audrey Bunting is doing the editing for all the manuscripts for the SPB Encyclopedia and Maria Tchakerian is supervising the EndDesign markup.
4. We have not abandoned the FEN hypertext volume, but do not want to delay publication of the SPB Encyclopedia while the FS figures out what to do with FEN.