Inventory *continued from page 5*

features of higher-priced tree inventory software programs. Also like the index card file system, it allows the community to decide how much information they want to collect on each tree. Communities need to have someone on staff who has experience with the software and they must recognize the time commitment required for keeping data and software up to date. If the data are keyed to a geographic location and the community has a GIS system it can generally be linked into it.

Commercial Inventory Software—This is a complete tree inventory with data keyed to street locations. Also computer-based, this method uses software specifically designed for tree inventories. This software generally assists in not only keeping track of trees, but of crews, budgets, accounting information, purchase orders and other management information. There are varying levels of customization available and most offer a very high level of data analysis. The data can also generally be linked to a GIS system. These software packages are designed for high-end use by medium to large communities. Consulting companies provide technical support that may range from simply trouble-shooting the software to a complete turnkey job in which the consultant collects and maintains the data. Upgrading to future versions of the software can be difficult and expensive. While this is a very powerful tool, like any complete inventory, it requires significant investment to maintain and update the data. The publication, *A Guide to Street Tree Inventory Software*[2], compares the features and requirements of many commercial inventory programs. Be aware that some of the entries in this publication are already out of date due to the rapid evolution of software. Contact the vendors for information on their most current version.

Pruning Elms: *continued from page 7*

References:
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Landwehr, V.R., W.J. Phillipsen, M.E. Ascerno and R. Hatch. 1981. *Attraction of Native Elm Bark Beetle to American Elm after the Pruning of Branches*. J. Econ. Entom. 74:577-580.

Geographic Information System (GIS)—With a GIS system, tree data are referenced to a geographic point, which allows precise mapping. The tree "layer" can be used in combination with plat maps, ortho photographs, utility and road data, etc. making it a very powerful planning tool. An important benefit for the development of a tree layer in GIS-capable communities is the automatic inclusion of the tree resource in the planning process for inter-departmental decisions. Note that this is not an inventory system per se, but a companion program that integrates inventory data and facilitates analysis and integrated management. The data are still kept on a database of some type that is linked to the GIS mapping software. Because of its complexity and cost, city foresters should not pioneer GIS for the community. It will be most useful if base layers already exist for other things as mentioned above. Additionally, foresters need to be certain that their data are compatible with the system and other city departments. Because it can display inventory information and analyses visually, it can be an excellent planning and very effective public relations tool. While typically thought of as a tool for large communities, it can be equally useful and functional for smaller communities that have a GIS system in place.

[1] Jaenson, R. 1992. *Statistical Method for the Accurate and Rapid Sampling of Tree Populations*. J. Arboric. 18:171.

[2] Olig, G.A. and R.W. Miller. 1997. *Guide to Street Tree Inventory Software*. USDA Forest Service, Urban Forestry Center for the Midwestern States, St. Paul, MN. See also http://www.na.fs.fed.us/spfo/pubs/urbanforestry/streettree/toc.htm.

From page 7 -

What Damaged This Tree?

by Kim Sebastian
DNR Southeast Region

Answer: These euonymus shrubs are infested with the webs of the euonymus caterpillar. According to the Eau Claire city forester, the insects were discovered at night, unhappily, by a couple of teenagers who were taking a shortcut through a park and found themselves in the midst of the webbing— the threads not only encompass the shrubs but extend for some distance from the trees and coat the ground below. High-pressure hoses from the fire station adjacent to the park were used to knock down the webs.

According to Phil Pellitteri, the insect is a relative newcomer to Wisconsin that has made something of a comeback in various locations around the state this past year.

Do you have pictures of tree damage others ought to know about? Send them to Kim Sebastian (address on page 16) and we'll print them here!