



## Western Wildland Environmental Threat Assessment Center



*“Early detection and prediction of the potential effects of multiple, interacting threats and stresses across a range of spatial and temporal scales”*

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**WWETAC Sponsored Publication a Best Seller** -- Following a 2007 WWETAC sponsored workshop on Forest Insects, Disease, and Climate Change, we worked through the PSW Research Station to support a group of scientists to review and synthesize literature on Climate Change and Forest Disease. This publication is now available on the Web ([http://www.fs.fed.us/psw/publications/documents/psw\\_gtr225/](http://www.fs.fed.us/psw/publications/documents/psw_gtr225/)) or in hardcopy by request to: [rschneider@fs.fed.us](mailto:rschneider@fs.fed.us) Popularity of the publication is moving it into a second printing.

**Synthesis of Effects of Insect-Caused Tree Mortality on Fire Characteristics** -- Recent reviews of scientific literature have not clarified connections between trees killed by insect outbreaks and wildfire. However, fire managers and field personnel have reported cases of modified fire behavior in beetle-killed stands, contradicting scientific studies. Reconciling these disparate views is key to furthering a greater understanding of these disturbance interactions; thus, WWETAC has convened a review team of Forest Service and academic scientists to establish the scientific understanding of this topic. A report and presentation for the Western Forestry Leadership Coalition will be available later this year.

**A Spatial Data Search Engine for the Wildland Threat Mapper** -- Around 1,000,000 spatial data sets on 30,000 Internet map servers are now available. Many of these map data layers could help with assessment of wildland threats. We built an Internet search engine to assess global spatial data sets for studying the spatial distribution and co-occurrence of various wildland threats and the values they affect. A presentation on this work and its utility for an array of applications will be made at the GEO-COMM conference in June.

**Focused Early Warning System** -- Continuing our work with NASA Stennis Space Center and EFETAC on the Early Warning System (EWS), we are focusing the EWS on specific, highly valued targets, which could be useful for monitoring remote habitat for TES species, municipal watersheds, and other critical resources. The online system will deliver weekly reports and maps that show significant changes in vegetation. For example, biologists concerned with monitoring active spotted owl nesting sites or other TES species could use the system.

**ArcFuels** -- Use of the ArcFuels toolkit as an efficient way to design and test landscape fuel treatments continue to grow. Application of ArcFuels was advocated several times by Collins et al. in the latest issue of the Journal of Forestry.

**Bark Beetles and Climate Change Modeling** -- Work continues with the Rocky Mountain and PSW Research Stations to evaluate and improve models to predict climate change effects on mountain pine beetle outbreak potential. When combined with downscaled temperature projections, the model will provide managers with a tool for making site-specific predictions of beetle suitability and tree mortality.

**“China Boomerang” Project Continues to Yield Surprising Results** -- Work with the PSW Research Station and scientists in China and South Africa continues to expand our knowledge of fungi carried by the Red Turpentine Beetle. Many fungi found on the beetle in China do not exist in the USA and some are more pathogenic to pines than those currently known as associates in the USA. Interestingly, the beetles in China appear to have come from our West Coast, but the only fungus from beetles in the USA found in China does not occur on the West Coast.

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