



## Forest Health

The Forest Health Program works cooperatively with the USDA-Aphis, USDA Forest Service and the Division of Entomology and Plant Pathology to monitor and/or control forest insects and diseases. The following summary highlights accomplishments for 2008:

**Gypsy Moth Management:** 17,832 acres treated in 8 counties; 14,980 traps detected 52,129 moths from 48 counties. No new counties were quarantined this year.

**Emerald Ash Borer:** The 200 Emerald Ash Borer survey deployed 23 field personnel from the Division of Forestry and USDA / APHIS to set approximately 7,000 EAB purple panel traps in the southern portion of the state. In addition, trap trees were set in high risk areas throughout the state. The survey identified four new infested counties; Brown, Floyd, Monroe, and Kosciusko. Through 2008, EAB was detected in 21 counties, particularly in northeastern Indiana

**Other potentially major exotic forest pests** of concern (but not yet encountered) for Indiana in 2008 include sudden oak death (SOD) and *Sirex* wood wasp. DNR surveyed 10 locations for *Sirex*, and inspected nurseries for SOD. Neither pest was intercepted in 2008, in Indiana.

The **2008 growing season's major forest health problems** were mainly related to weather events, as in 2007. June flooding in central Indiana, a cool late spring throughout the state, and a hurricane – Ike- caused widespread injuries to state forest resources. Ike caused damages throughout the state, both in southern Indiana through sustained winds of 70 mph and through flooding in northwest Indiana. Weather damage manifested itself in uprooted and broken tree stems, nutrient deficiency from saturated soils, flood damage mortality, hail damage. Flood damage often takes several years to fully manifest in forest stands, and was not immediately visible except where trees were dislodged through supersaturated soils.

Gypsy moth and emerald ash borer continue to increasingly impact portions of the state's woodlands. Visible Gypsy Moth defoliation and EAB mortality over entire woodlots was visible through aerial survey this year, for the first time ever. Forest tent caterpillar, a native species with recent impacts in southeast Indiana,

has begun to recede, leaving visible evidence of widespread stand mortality in southwest Indiana.

**Recurring forest health issues** continue with oak wilt, butternut canker, ash yellows, white pine root decline (*Proceras* root rot), overstocked and aging pine plantation mortality, and pine shoot beetles. Other potentially major forest pests of concern (but not yet encountered) for Indiana in 2008 include the exotics – sudden oak death and *Sirex* wood wasp – and a native species – beech blight aphid.

Finally, **continuing forest mortality** from extended droughts (1999, 2002, late 2005, 2007) and past defoliations (loopers, forest tent caterpillar, anthracnose, frosts and freezes) continue to affect forestlands years after the fact.