

Achieving Our Mission Slowing the Spread of Gypsy Moth 2011 Accomplishment Report

Executive Summary: States located along the leading edge of gypsy moth populations and highlighted in this document have cooperatively worked with the USDA Forest Service, to implement a project to slow the spread of the gypsy moth. This work has been ongoing since Congress funded the strategy in the year 2000. The primary goal of the program is to reduce spread by at least 60% from the unrestricted rate of 20 km per year. Accomplishments to date include:

- Reduces the spread of this destructive pest by at least 60%, which has prevented infestation of more than 100 million acres since the program's inception in the year 2000.
- Yields a benefit to cost ratio of more than 3 to 1 by delaying the onset of impacts that occur as gypsy moth invades new areas. The 20-year net present value after subtracting costs is estimated at 184 to 348 million dollars.
- Protects the extensive urban and wild land hardwood forests in the south and upper mid-west while also protecting the environment through use of gypsy moth specific strategies.
- STS Project Area 2011

 Action area Monitoring area
- **Unifies** the partners and promotes coordinated, regionwide action based on biological need *through* the establishment of the STS Foundation, which provides a formal framework for cooperation among its member states.
- Insures that actions are standardized across the multiple administrative and jurisdictional boundaries in the program by utilizing a powerful decision algorithm to plot project boundaries, locate incipient infestations, prioritize and delineate infestations for treatment, evaluate the success of each treatment and measure spread rates each year.

2011 Gypsy Moth Slow the Spread Accomplishments

Funding: Partner contributions during 2011 included the following:

Forest Service \$10,550,000 State Partners \$2,603,965 TOTAL \$13,153,965

Project Area: The band where intensive monitoring and control measures are implemented (yellow band on map) remained at the biologically optimized 100-km width.

Trapping: Partners deployed traps at 96% of the 83,857 planned trap sites during 2011. Data from these traps was utilized to measure spread, evaluate treatment efficacy and to detect or delineate newly established infestations that will need to be treated during 2012.





















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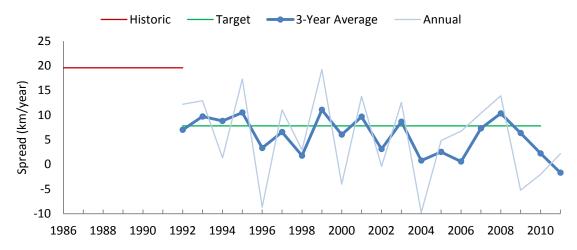
Treatments: Partners delineated more than 200 distinct gypsy moth colonies within the program area in 2010. Treatments subsequently occurred on just over 526,000 acres during the spring and summer of 2011 to reduce spread associated with recently established infestations. Mating disruption was the most widely used treatment and will continue to be because it is effective, inexpensive and target specific.

STATE	# OF COLONIES MANAGED	ACRES OF TI Larvicides (Btk, dfb or GypChek)	REATMENT Mating Disruption
IA	4	0	82,934
IL	25	2,119	11,074
IN	33	2,852	25,115
MN	12	342	113,500
NC	7	0	14,074
ОН	25	3,603	34,818
VA	18	1,586	13,917
WI	80	35,010	185,140
TOTAL	204	45,512	480,572

Treatments were successful on 71 of the 98 blocks (72%) treated with Btk, Dimilin or Gypchek in 2011. Previous year mating disruption treatments (2010) were successful on 80 of the 88 blocks (91%). Both Disrupt II and SPLAT-GM were used on the mating disruption projects. The addition of a 2nd disruptant (SPLAT-GM) has led to greater competition and reduced prices for mating disruption treatments.

Spread: The effect of 2 consecutive years of full funding combined with the absence of outbreak in the Mid-Atlantic States is evident in the steady decrease in spread rates observed from 2008 to 2011. Since inception of the program, spread has averaged 4 km per year.

Rate of Spread Measured in the STS Program Area



Summary of 2011 project activities that contribute to the success of the STS program

Category	Accomplishment	Cost (thousands)
Monitoring	≈ 83,000 pheromone traps deployed in 10 states, spread measured and all treatments evaluated.	\$5,525 (≈\$59 per trap)
Treatments	>200 infestations totaling about 526,000 acres treated; 91% treated with gypsy moth specific products	\$6,484 (≈\$12.31 per acre)
Data management	Streamlined and standardized data collection, planning and evaluation of all implemented actions	\$915
Technology Development	New product developed for use in mating disruption; better understanding of phenology in northern areas	\$230