



2005 Accomplishments In Slowing the Spread of the Gypsy Moth



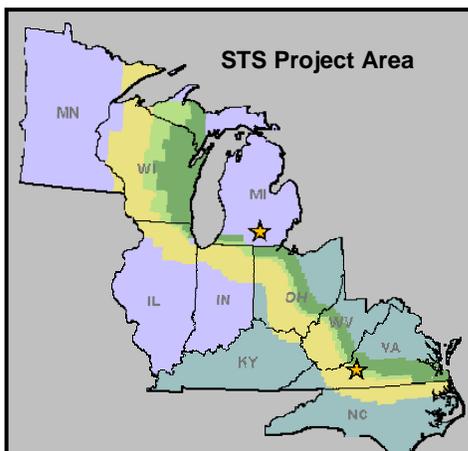
Ten states located along the leading edge of gypsy moth populations, together with USDA Forest Service (FS) and Animal and Plant Health Inspection Service (APHIS), have been cooperatively implementing a project to slow the spread of the gypsy moth (STS) since Congress funded the strategy in the year 2000. Integrating STS into USDA's strategy to manage the gypsy moth has:

- Reduced spread of this invasive pest by more than 70% from the historical average of 21 km per year. Without this project, the gypsy moth would be established on more than 30 million additional acres across eleven states.
- Unified the partners, increased accountability and promoted action based on biological need rather than availability of matching funds through use of a novel management structure – the STS Foundation.
- Involved the states of Minnesota, Michigan, Wisconsin, Illinois, Indiana, Ohio, West Virginia, Kentucky, Virginia and North Carolina. Iowa will likely join the program in the near future.

The STS program underwent a review by the USDA Forest Service's Washington Office during 2005. Numerous recommendations to improve the project's performance emerged from the review. Most significant was the recommendation to use project funds for technology development.

A band totaling approximately 51 million acres (yellow shaded area on map) was comprehensively managed during 2005, with an additional 34 million acres (green shaded areas on map) monitored less intensively to measure the program's effect on spread. Significant new area was added to the project along the north shore of Lake Superior in the state of Minnesota.

STS partners detected and delineated 198 distinct gypsy moth colonies within the STS area in 2004. Treatments subsequently occurred on just over 414,000 acres during the spring and summer of 2005. This included 15,051 acres of treatment on federal lands.



STATE	# OF COLONIES MANAGED	ACRES OF TREATMENT	
		Larvicides (Btk, dfb or GypChek)	Mating Disruption
NC	9	6,230	41,750
VA	37	7,098	79,150
WV	4	0	13,650
OH	35	16,278	3,725
IN	33	5,940	14,950
IL	15	3,563	26,525
WI	65	87,367	108,140
MN	0	0	0
TOTAL	198	126,476	287,890

Treatments were successful on 81% of the blocks treated with Btk, Dimilin or Gypchek in 2005. Previous year mating disruption treatments were successful on more than 85% of the blocks. Mating disruption will continue to be a major part of STS because it is effective, inexpensive and target specific.



STS partners deployed traps at almost 95% of the 93,000 planned trap sites during 2005. Data from these traps were used to measure spread, evaluate treatment efficacy and to detect or delineate newly established infestations that will need to be treated during 2006.

Michigan State University and Virginia Polytechnical Institute and State University share responsibility for project information management. In addition to routine duties associated with project implementation, accomplishments this past year include

- continued deployment of the trapper gadget in 3 states,

- moving the roadshow from ArcView into ESRI's ArcGIS and SDE

Gypsy moth populations rebounded in some areas that have been infested for years. Despite this pressure from behind the line, spread rates remain low across the entire STS area (pink line in the graph below).

The STS project received \$10 million in funding from the Forest Service to implement the program in 2005. During 2005 STS partner contributions collectively totaled:

Forest Service	\$10,100,000
State Partners	\$ 2,793,379
APHIS	<u>\$ 270,000</u>
TOTAL	\$13,363,379

Summary of project activities and costs

Activity	Accomplishment	Cost
Monitoring	≈ 88,350 pheromone traps deployed in 10 states	\$4.9 million (\$54.38 per trap)
Treatments	198 infestations totaling ≈ 414,000 acres treated > 75% treated with gypsy moth specific products	\$7.1 million (\$17.03 per acre)
Data management	Data management and analysis	\$0.9 million
Regulatory	Inspections, compliance agreements and education	\$0.27 million

Gypsy Moth Spread

