



An Analysis of the Economic Feasibility of the Gypsy Moth Slow the Spread Program



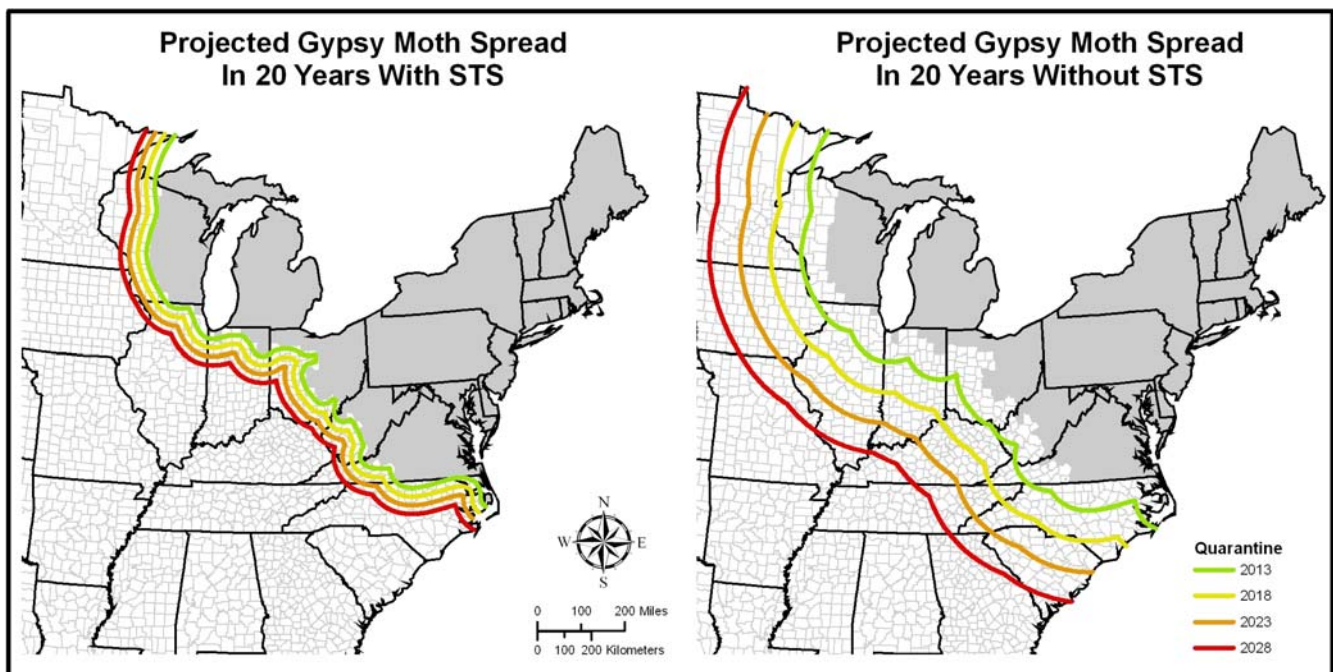
The Slow the Spread Program

The Gypsy Moth Slow the Spread program (STS) has successfully reduced the rate of spread of the gypsy moth. This destructive, non-native forest pest was introduced to the U.S. in 1869, and is currently established in all or parts of 19 states and the District of Columbia (grey areas on maps).

- More than **300 species of trees and shrubs are hosts to gypsy moth**; oaks, willow, and aspen particularly vulnerable.
- More than 78 million acres have been defoliated by gypsy moth since 1970, **including over 1.3 million in each of the last 3 years**.
- Gypsy moth defoliation causes tree mortality, reduces property values, adversely affects commerce, and creates health problems for sensitive individuals who may come in contact with the caterpillars.
- About 70% of susceptible U.S. forests have never been infested by the gypsy moth and are still at risk.
- The **STS project** has reduced gypsy moth spread from **13–15 to 3–5 miles per year**, which will protect more than **150 million acres over the next 20 years** (compare maps).

Economic Feasibility of STS

- A 1990 economic analysis for STS projected a **benefit-to-cost ratio of approximately 4 to 1**.
- In 2007, a revised economic analysis was completed to determine the **economic feasibility of STS as it is implemented today**.
- The objective of this analysis was to **project and compare benefits and costs of STS for the next 20 years (2007 to 2026)**.
- Costs associated with the STS project include detection trapping for new gypsy moth populations and subsequent treatments.
- Benefits include the postponed costs of quarantine, and the suppression of outbreaks that mitigate impacts to forested areas and urban forests on public and private lands.
- The **projected benefits of the STS program are at least 3 times as high as its costs**.
- The total net present value (after subtracting costs) of implementing the STS project over the next 20 years (2007- 2026) is estimated to be **between \$184 and \$348 million USD**.
- The **total net present value is a conservative estimate** because it excludes ecosystem service benefits, as well as benefits that would continue to accrue after the year 2026.



Grey shaded counties are infested as of 2008. Colored lines represent the predicted boundary of the gypsy moth quarantine over the next 20 years, with and without the STS Program.