



Forest Health *Notes*



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2014 Gypsy Moth Treatments

The 2013/2014 statewide gypsy moth trapping and treatments are complete and once again North Carolina avoided gypsy moth establishment, though Currituck County and a portion of Dare County remain in quarantine for the insect.

The Gypsy Moth Program. The gypsy moth program in North Carolina is currently under the jurisdiction of the N.C. Department of Agriculture and Consumer Services (NCDA&CS) – Plant Industry Division and we thank them for providing these trapping results and treatment data. North Carolina is on the leading edge of the gypsy moth front and in previous years, all 100 counties were trapped annually for male gypsy moths using pheromone-baited traps (male gypsy moths are targeted by trapping efforts because female gypsy moths do not fly). As was the case in the previous year, federal budget reductions limited the number of traps that could be placed. In 2012, NCDA&CS conducted a statewide analysis of the risk of introduction and establishment of gypsy moth to determine trapping priority areas. The analysis incorporated many different data types, including gypsy moth habitat quality, proximity to high moth captures, and locations with elevated potential for human-aided gypsy moth movement (e.g., ports, interstate highways, welcome centers, campgrounds, etc.). Based on this analysis, high risk counties will be surveyed annually, medium risk counties biannually, and low risk counties will be surveyed every third year. The risk assessment is shown in Figure 1.

Contractors, through a federal program called Slow The Spread (STS), trap the northern portion of North Carolina, while numerous cooperators trap the remainder of the state, including some overlap with STS counties. The trapping efforts provide gypsy moth

population information that allows managers to utilize the most efficient treatment methods available.

The NCDA&CS uses the trap counts to determine patterns of gypsy moth infestations, though the presence of trapped male moths does not necessarily indicate there is a reproducing gypsy moth population in the area. Trap counts compiled over several years can reveal with more confidence whether a location is infested with a reproducing gypsy moth population or if the moths caught were likely blown in during a weather event, usually denoted by a few moths found in scattered traps.

The NCDA&CS also conducts surveys at locations suspected of having reproducing populations to locate additional life stages (i.e., egg masses or pupa cases). Along with trapping data, these surveys help to determine what treatment is most appropriate for a suspected infestation.

2013 Trapping Results. The 2013 trapping season produced fewer positive trap captures within fewer traps than in 2012. A map of the 2013 gypsy moth trap catches is shown in Figure 2. The 2014 trapping season, which will determine treatments that will be done in 2015, is currently underway.

Gypsy moth trap data from 2011-2013 trapping seasons.

	<u>2013-2014</u>	<u>2012-2013</u>	<u>2011-2012</u>
Trap captures	431	1457	274
Positive traps	247	419	124
Total traps placed	10,380	11,565	19,210
Number of treatments	3	5	1
Total acreage of treatments	2495	3854	1600

2014 Treatments. Based on the low trap captures in 2013, only three treatments were conducted in North Carolina this year. Treatments for gypsy moth focus on either killing the insect outright or disrupting its ability to find a mate. All three of the treatments in 2014 were mating disruption treatments. The areas included 1,804 acres in northwest Warren County, 174 acres in western Rockingham County, and 517 acres in northern Rockingham County.

Figure 1. 2012 Gypsy moth risk map for trapping prioritization

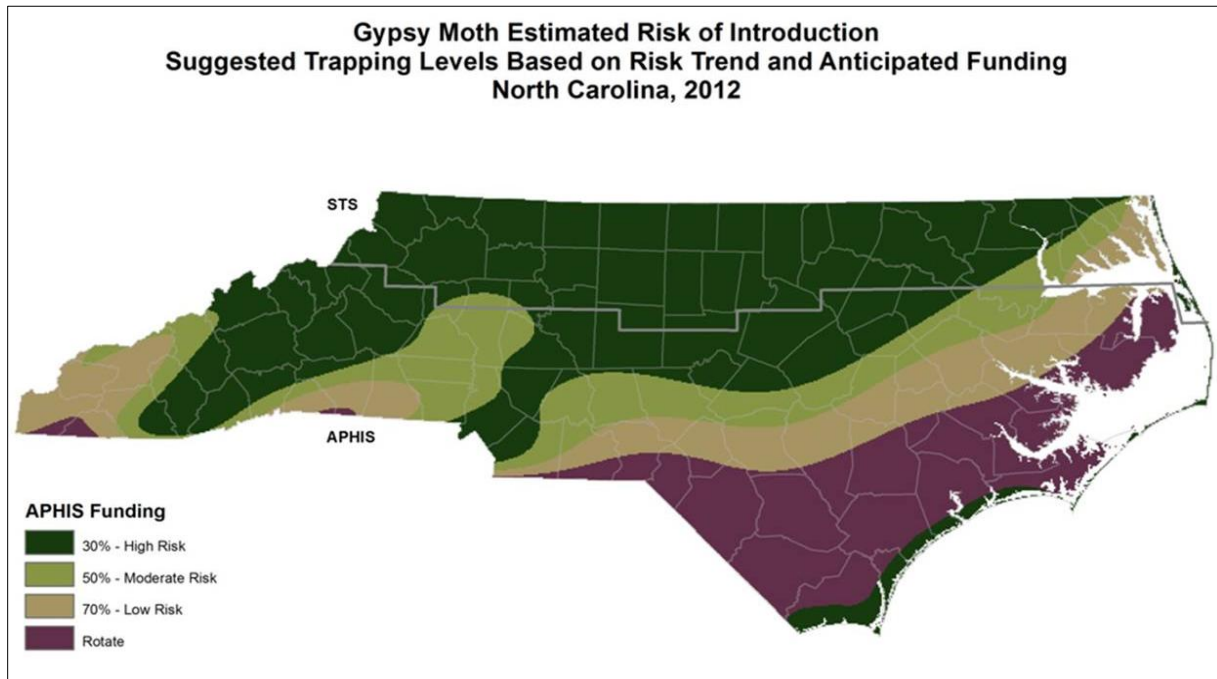


Figure 2. 2013 Gypsy moth trap catches

