



Forest Health *Notes*



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2012 Gypsy Moth Trapping Results

The 2012 statewide gypsy moth trapping is 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 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. North Carolina is on the leading edge of the gypsy moth front and in previous years all 100 counties were trapped each year for male gypsy moths using pheromone-baited traps; male gypsy moths are targeted by trapping efforts because female gypsy moths do not fly. This year, however, federal budget reductions limited the number of traps that could be placed. 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, including the N.C. Forest Service (NCFS), 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. These surveys are ongoing.

Based on the low trap captures in 2011, only one treatment was conducted this year. Treatments for gypsy moth focus on either killing the insect outright or disrupting its ability to find a mate and vary based on the gypsy moth life stage being targeted. The single mating disruption treatment in 2012 was on 1,600 acres in western Caswell County with a small portion in Rockingham County.

In Onslow County, where treatments were completed in 2010 and 2011, a post-treatment evaluation grid was installed. In 2009, almost 3,000 male moths were captured in this block. This year, of the twenty traps placed in the area, only one male moth was captured. This grid will be monitored for at least two more years.

This year, five counties throughout the state were either entirely or partially trapped by NCFS personnel. We'd like to recognize and send a big thank you to the following counties for their assistance in this year's trapping effort: Brunswick, Cherokee, Lenoir, Stanly, and Yancey. The information these counties provided is very valuable in the ongoing efforts to monitor this pest.

The 2012 trapping season produced many more positive trap captures than in 2011. This increase was expected as 2011 was an exceptionally low trap catch year. This year's trap captures are roughly equivalent to average trap captures over the last decade. Statewide there were only 11,565 traps placed compared to 19,210 traps placed in 2011. Of these 11,565 traps, 584 were placed by NCFS personnel. This year, 419 traps were classified as positive, meaning they caught at least one gypsy moth (124 were positive in 2011) and a total of 1,457 moths were caught (only 274 moths were caught in 2011). A map of the

2012 gypsy moth trap catches is shown in Figure 2, followed by a table of trap catches by county.

Prospects for 2013

The NCDA&CS notes that while a good portion of the traps were negative or had low trap catches, notable moth captures were picked up in several key areas: north-central NC, Corolla (NE Currituck County), and the southeast coast. Gypsy moth egg mass surveys will be conducted at ten suspected or known infestations. The results of these surveys will help determine what locations may need treated in the spring of 2013.

Figure 1. 2012 Gypsy moth risk map for trapping prioritization

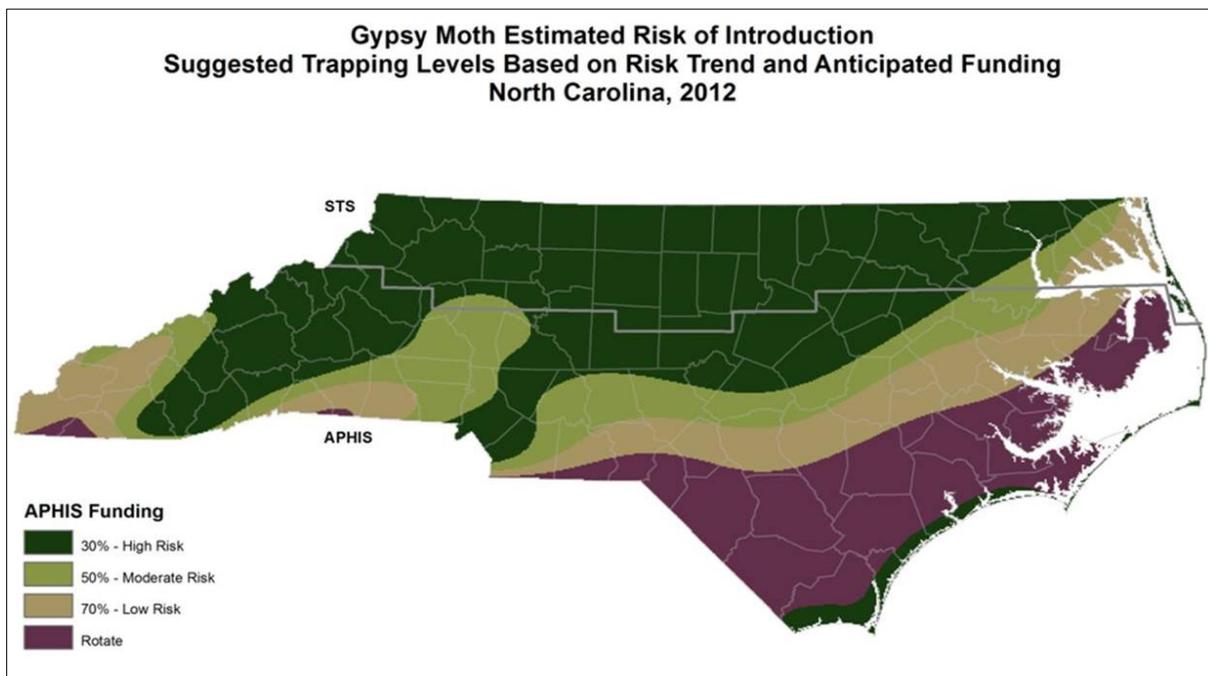
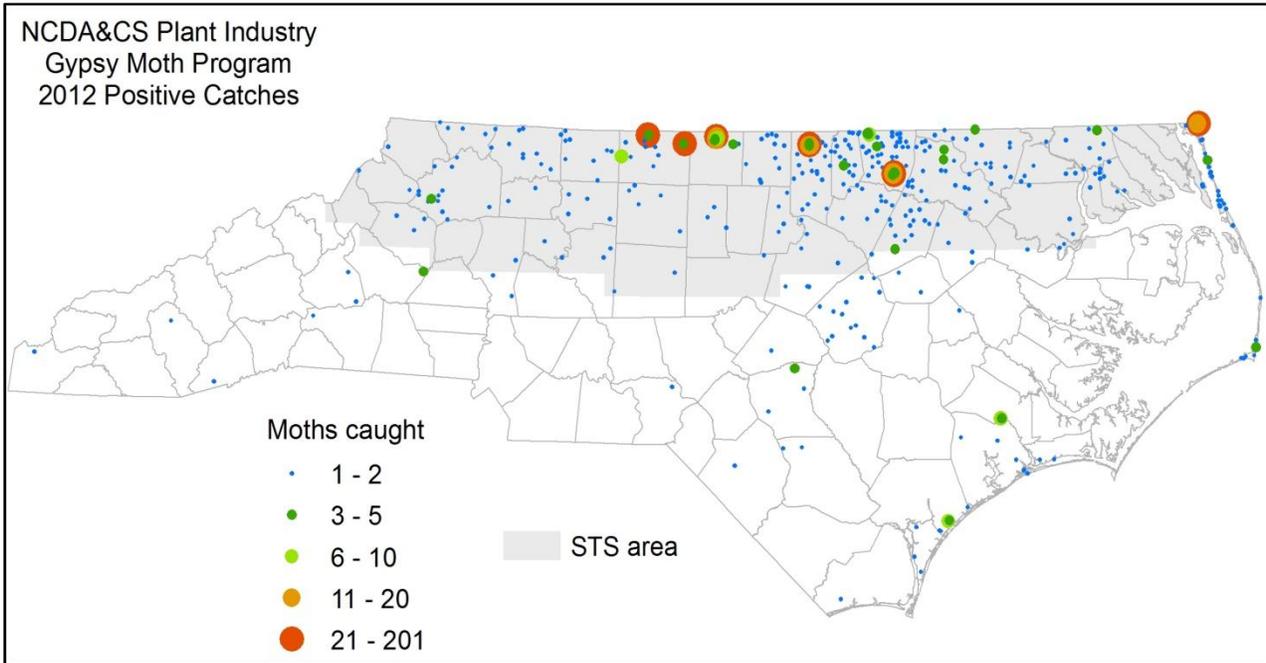


Figure 2. 2012 Gypsy moth trap catches (grey shading is the STS area)



2012 Gypsy Moth Trapping Results by County

All counties in grey were negative for gypsy moth.

County	Total Traps	Positive Traps	Gypsy Moths	County	Total Traps	Positive Traps	Gypsy Moths
Alamance	122	2	2	Johnston	263	14	15
Alexander	78	0	0	Jones	16	6	18
Alleghany	95	5	5	Lee	77	0	0
Anson	0	0	0	Lenoir	113	0	0
Ashe	123	1	1	Lincoln	0	0	0
Avery	70	0	0	Macon	142	0	0
Beaufort	262	0	0	Madison	87	0	0
Bertie	214	5	7	Martin	134	1	1
Bladen	227	2	2	McDowell	100	2	2
Brunswick	261	1	1	Mecklenburg	169	0	0
Buncombe	174	0	0	Mitchell	61	0	0
Burke	158	4	11	Montgomery	0	0	0
Cabarrus	106	0	0	Moore	206	0	0
Caldwell	142	3	3	Nash	162	14	18

County	Total Traps	Positive Traps	Gypsy Moths	County	Total Traps	Positive Traps	Gypsy Moths
Camden	68	1	1	New Hanover	147	3	3
Carteret	45	2	2	Northampton	167	15	19
Caswell	436	16	121	Onslow	200	6	6
Catawba	125	0	0	Orange	120	1	1
Chatham	206	1	1	Pamlico	1	0	0
Cherokee	130	1	1	Pasquotank	77	0	0
Chowan	57	5	6	Pender	69	9	16
Clay	1	0	0	Perquimans	83	4	5
Cleveland	4	0	0	Person	119	11	12
Columbus	2	0	0	Pitt	17	0	0
Craven	10	0	0	Polk	0	0	0
Cumberland	180	3	6	Randolph	223	2	2
Currituck	177	20	212	Richmond	131	1	1
Dare	141	17	23	Robeson	14	1	1
Davidson	168	3	3	Rockingham	247	13	119
Davie	81	1	1	Rowan	150	0	0
Duplin	5	0	0	Rutherford	147	1	1
Durham	91	4	4	Sampson	8	0	0
Edgecombe	148	5	5	Scotland	5	0	0
Forsyth	121	4	4	Stanly	114	0	0
Franklin	150	11	12	Stokes	132	8	10
Gaston	111	0	0	Surry	160	10	12
Gates	103	7	10	Swain	1	0	0
Graham	3	0	0	Transylvania	80	1	1
Granville	213	30	213	Tyrrell	99	0	0
Greene	77	1	1	Union	185	0	0
Guilford	192	5	5	Vance	84	16	22
Halifax	221	23	34	Wake	308	8	8
Harnett	171	1	1	Warren	191	56	428
Haywood	108	0	0	Washington	16	0	0
Henderson	86	0	0	Watauga	96	2	2
Hertford	108	6	8	Wayne	6	0	0
Hoke	27	0	0	Wilkes	236	16	20
Hyde	17	0	0	Wilson	120	2	2
Iredell	178	3	3	Yadkin	100	2	2
Jackson	125	1	1	Yancey	64	0	0