NORTH CAROLINA FOREST SERVICE N C

Forest Health Notes

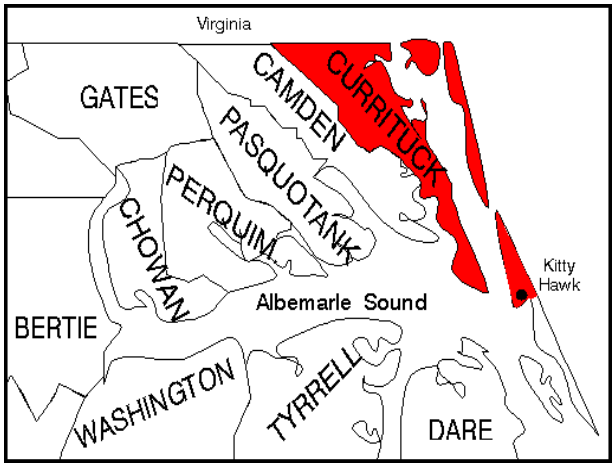
VOLUME **201801-GM** **January 2018**

2017-2018 Gypsy Moth Trapping

BACKGROUND

A female gypsy moth and her egg mass, picture taken by Chris Elder (NCDA&CS – Plant Industry) in Buxton, NC.

The Gypsy Moth Program. The gypsy moth program in N.C. is under the jurisdiction of the NCDA&CS – Plant Industry Division and we thank them for providing these results. North Carolina is on the leading edge of the expanding gypsy moth front. To prevent further establishment of gypsy moth in our state, traps are set annually for male gypsy moths using pheromone-baited traps (the lure mimics the sex pheromone produced by female gypsy moths). Through the **Slow the Spread (STS)** program, contractors trap the northern portion of N.C., while numerous cooperators trap the remainder of the state, including some overlap with STS counties. The trapping efforts provide information about gypsy moth populations and allows managers to determine and utilize the most efficient treatment methods available.



Quarantined Area. All of Currituck County and part of Dare County are under a quarantine for gypsy moth (quarantine established in 1988). Regulated articles (e.g., logs, nursery plants, outdoor household articles) can only leave the quarantined area if they are inspected or treated (must also have a compliance agreement with NCDA&CS – Plant Industry Division).

Determining Treatments. Because traps only indicate how many male moths are in an area, trap capture data cannot be used alone as a basis for treatment decisions. Determining where to treat and what treatment method to use is based on several factors: the previous year's trap counts, historical trap counts in the same area, and results from winter egg and pupal case surveys. When these data are combined, they reveal with more confidence whether a location is infested with a reproducing gypsy moth population (both males and females are present) or if the male moths were blown in during a weather event or some other phenomenon.

Does 'Slow the Spread' really work?

The STS program is undeniably a success story.

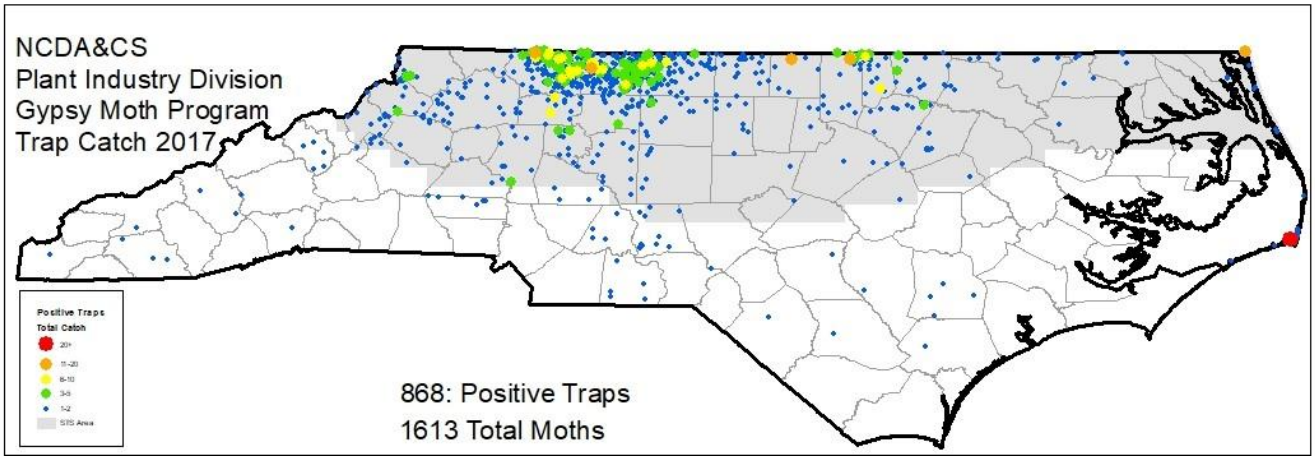
- STS has reduced the spread of gypsy moth by 60% from the historical average of 21 km/yr.
- Without STS, gypsy moth would likely be established on 140 million additional acres.
- N.C. has not suffered defoliation events from gypsy moths that other states within the range of gypsy moth have.

RESULTS

2017 Trapping Results. The 2017 trapping season produced less positive trap captures than in 2016 (see table & map of trap capture locations below). For a list of trap catches by county, reference the table at the end of this publication.

Gypsy moth trap data from 2012-2017.

	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
Total moths captured	1,613	7,235	2,021	757	431	1457
Number positive traps	868	3,172	915	348	247	419
Total traps placed	19,869	17,897	12,939	13,631	10,380	11,565
Number of sites treated	10 (proposed)	6	11	3	3	5
Total acreage of treatments	96,043 (proposed)	27,865	35,019	21,250	2,495	3,854



2017 Gypsy moth trap catches. *Map created by T. Perkins, Michigan State University.*

Proposed 2018 Treatments. Based on the 2017 trap captures and winter surveys, ten areas were selected to receive treatments in 2018. An interactive map of the treatment areas can be viewed at http://www.ncagr.gov/plantindustry/Plant/entomology/ProposedGypsyMothTreatments.htm.

BLOCK NAME	COUNTY	ACRES	TREATMENT TYPE	NO. OF APPLICATIONS
Baldwin Gap	Ashe/Watauga	1775	MD	1
Buxton	Dare	47	BTK	2
Cana	Surry	1775	MD	1
Hanging Rock	Stokes	15129	MD	1
Mayodan	Rockingham/Stokes	30621	MD	1
Mount Airy North	Surry	8326	MD	1
Mount Airy South	Stokes/Surry	21755	MD	1
Roxboro	Person	356	MD	1
Southwest Eden	Rockingham	1443	MD	1
Stovall	Granville/Vance	14816	MD	1

Treatment types: BTK- a bacterial pesticide used in the control of larvae; MD – Mating disruption (pheromone flakes).

2017 Gypsy moth trap catches by county.

County	Traps Set	Positive Traps	Moths Caught
Alamance	227	10	11
Alexander	78	2	2
Alleghany	218	2	3
Anson	142	5	5
Ashe	394	13	23
Avery	73	7	8
Beaufort	259	0	0
Bertie	316	1	1
Bladen	261	1	1
Brunswick	295	0	0
Buncombe	198	0	0
Burke	146	5	5
Cabarrus	110	0	0
Caldwell	153	8	8
Camden	166	0	0
Carteret	165	0	0
Caswell	389	26	28
Catawba	114	2	2
Chatham	216	2	3
Cherokee	108	1	1

County	Traps Set	Positive Traps	Moths Caught
Chowan	88	0	0
Clay	36	0	0
Cleveland	138	0	0
Columbus	276	0	0
Craven	194	0	0
Cumberland	193	1	1
Currituck	244	7	26
Dare	797	28	197
Davidson	207	12	13
Davie	79	10	14
Duplin	234	4	4
Durham	120	2	2
Edgecombe	150	0	0
Forsyth	221	18	20
Franklin	245	10	16
Gaston	103	0	0
Gates	235	3	3
Graham	48	0	0
Granville	393	42	88
Greene	76	0	0

County	Traps Set	Positive Traps	Moths Caught
Guilford	314	16	20
Halifax	452	2	2
Harnett	177	0	0
Haywood	120	3	4
Henderson	119	1	1
Hertford	229	4	4
Hoke	121	0	0
Hyde	200	1	2
Iredell	173	8	11
Jackson	123	0	0
Johnston	231	1	1
Jones	150	0	0
Lee	75	0	0
Lenoir	117	0	0
Lincoln	90	6	6
Macon	102	3	3
Madison	118	0	0
Martin	136	0	0
McDowell	108	0	0
Mecklenburg	177	0	0
Mitchell	56	1	1
Montgomery	167	11	12
Moore	196	0	0
Nash	221	8	8
New Hanover	82	0	0
Northampton	406	7	7
Onslow	192	0	0
Orange	178	0	0
Pamlico	121	0	0
Pasquotank	155	0	0

County	Traps Set	Positive Traps	Moths Caught
Pender	300	1	1
Perquimans	152	0	0
Person	331	6	17
Pitt	193	0	0
Polk	62	0	0
Randolph	241	5	6
Richmond	138	1	1
Robeson	278	1	1
Rockingham	568	126	201
Rowan	164	4	5
Rutherford	162	0	0
Sampson	278	1	1
Scotland	90	0	0
Stanly	123	4	4
Stokes	419	157	290
Surry	486	171	372
Swain	54	1	1
Transylvania	129	0	0
Tyrrell	105	0	0
Union	169	0	0
Vance	263	17	37
Wake	255	3	3
Warren	367	18	23
Washington	120	0	0
Watauga	194	11	16
Wayne	172	0	0
Wilkes	451	25	30
Wilson	111	1	1
Yadkin	190	16	31
Yancey	93	5	5
TOTAL	**19869**	**868**	**1613**

For updates on gypsy moth treatments, visit the Gypsy Moth Program website at http://www.ncagr.gov/plantindustry/Plant/entomology/GM.htm