

### Gypsy Moth Egg-Mass Counting

Before making a field count of egg masses, it is best to acquaint oneself with the local population, in order to distinguish old egg masses from new or current season's egg masses. No one characteristic can be relied upon for this distinction.

For egg masses within reach, a basic test is the "touch test." New egg masses are generally firm to touch, whereas old ones are soft. Caution must be exercised where new egg masses have few eggs per mass or large quantities of hair per mass. These two factors can often cause new egg masses to feel soft. In cold weather, hands can become numb, thereby reducing the effectiveness of the touch test.

When the eggs are squeezed between the fingernails, if a popping sound is heard, the eggs are new. However, if the new eggs are dehydrated or have been parasitized, this test is less reliable. If the egg mass is within reach, scraping the egg mass apart and watching the eggs fall can give an indication of age. Old eggs are less dense and tend to float to the ground, whereas new eggs tend to descend more rapidly and make a slight sound when hitting leaves or other ground cover.

General appearance can also be an indicator of age. Old egg masses have exit (hatch) holes and have an overall ragged appearance. The older the egg mass, the greater the weathering and raggedness. Care is needed where

parasitism of new egg masses has occurred. Both exit holes of old egg masses and points of entry of parasites to the new eggs appear as pinholes in the egg masses. New egg masses may also appear ragged because of predators such as birds or mice.

Color and relative size of the egg masses are less reliable indicators of age. Old egg masses are dull in color and appear bleached out. It is best to see if the color test holds true for those egg masses that can be aged by the previously described methods. If the color test holds true for low, reachable egg masses, it can then be safely utilized to determine age of higher, unreachable egg masses. As the time interval between the deposit of egg masses by the gypsy moth and the egg-mass count increases, the reliability of the color test decreases. Relative size of the egg masses can be used where the previous season's population was stressed. In this case, the new egg masses will be generally smaller than the old egg masses.

By reviewing the above characteristics in the field, particular distinction for age of a given population can be noted and utilized in surveying that population. If the survey is extensive or is to include populations of various ages, be aware of transition zones in these populations. Another indicator which can be used is the forest type. Under stress, the gypsy moth will move into a less favorable or even an undesirable food class. A typical movement of this nature is from oaks to maples and evergreens.

## Egg Mass Survey

Please complete this before hunting season starts so we can work on the data asap.

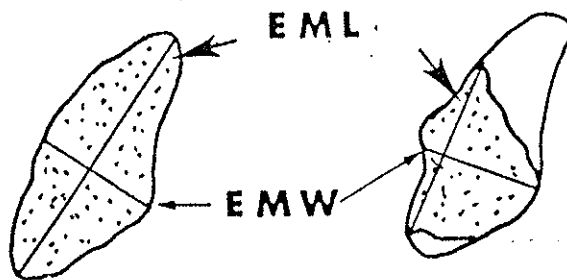
Substrate: Record oviposition substrate according to the following classification:

- 1 = Live (numbered) trees >7.5 cm dbh
- 2 = Standing dead trees (snags)
- 3 = Fallen dead trees and limbs
- 4 = Litter
- 5 = Rock
- 6 = Live trees <7.5 cm dbh

EM#: Number consecutively.

EML: Egg Mass Length - reference diagram.

EMW: Egg Mass Width - reference diagram.



The egg mass survey is to be done only in the plots (4/location). Please look up, down, and under everything possible.



VERMONT GYPSY MOTH FOCAL AREA: EGG MASS SURVEY

SITE: \_\_\_\_\_ PLOT #: \_\_\_\_\_ OBSERVERS: \_\_\_\_\_  
 DATE: \_\_\_\_\_ PLOT TYPE: \_\_\_\_\_ Focal Area \_\_\_\_\_ Control \_\_\_\_\_

NOTE: Count all egg masses in the plot and measure 20 within reach.

EGG MASS TALLY

EGG MASS DIMENSIONS

Other Than Plot Trees

Substrate	# in Plot	Length (in mm.)	Comments
2 - Snags		1	
3 - Down Trees & Limbs		2	
4 - Litter		3	
5 - Rock		4	
6 - Live Trees <7.5 cm DBH		5	

Plot Trees

Tree #	# on Tree	Tree #	# on Tree	Tree #	# on Tree		
						7	
						8	
						9	
						10	
						11	
						12	
						13	
						14	
						15	
						16	
						17	
						18	
						19	
						20	

Total # of Egg Masses in the Plot: \_\_\_\_\_

Average \_\_\_\_\_

GENERAL LOCATION OF EGG MASSES IN THE PLOT: \_\_\_\_\_ under burlap only  
 \_\_\_\_\_ generally distributed \_\_\_\_\_ within 3' of the ground \_\_\_\_\_ other \_\_\_\_\_

COMMENTS: \_\_\_\_\_