

SPONGY MOTH



Background

- Spongy moth are voracious eaters
- Oak leaves are first choice for feeding caterpillars, but feed on many tree species
- Only caterpillars feed, adult moths do not feed
- Adults live for approximately 2 weeks – sole purpose is to reproduce
- Males – brownish color, have wings, and fly
- Females – white color, have wings, but do not fly
 - Egg masses estimated to produce 500-1,000 eggs per mass
- ❖ The Illinois Department of Agriculture (IDOA) indicates that spongy moth populations/infestations have exploded in northern Illinois during the past several years.
- ❖ Mainly due to being blown in from other regions (northerly and westerly winds) and insufficient efforts to eradicate region-wide.
- ❖ Nancy Johnson, Plant & Pesticide Specialist with the IDOA, shared this link ([click here](https://arcg.is/zSDT0)) to a slideshow presentation providing additional information on spongy moth in Illinois:
<https://arcg.is/zSDT0>



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2022

- Public Works staff set out 25 traps that were provided by IDOA
 - Purpose was to help delineate the extent of infestations in East Dundee
- Focused on two areas with significant infestations
 - Traps confirmed substantial infestations in Lakewood Estates & Terrace



2023

- May: Hendrickson Flying Service
 - Conducted two aerial treatments of *Bacillus thuringiensis* var. *kurstaki* (Btk)
 - Btk is a naturally occurring soil bacteria that interferes with the spongy moth caterpillars' digestive system - eventually killing the caterpillar.
- July: Public Works set out 25 post-treatment traps at locations throughout the Village to evaluate effectiveness of aerial treatment



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2023 (continued)

- August: Public Works collected 24 of the 25 traps (one was missing)
 - All traps contained moths, counts ranging from approximately 5 to 155
 - Traps with highest moths counted located in northern most areas of Village

Aerial Treatments

- Most of East Dundee was treated (west of IL Route 25)
- Successful treatment results in killing of most/all of feeding caterpillars
 - Particularly targets females to eliminate mating partners for the flying male moths
- High level of confidence that trapped (male) moths flew from surrounding non-treated areas or were blown in from Wisconsin
- Areas immediately adjacent to East Dundee have infestations that have not been treated (via aerial treatment which is the most effective treatment)



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Trapping

- Effective radius of each pheromone-baited trap is approximately 0.5 miles
- Only males are trapped as female spongy moths do not fly
 - Trapped male moths were attracted to pheromone inside each trap and flew into East Dundee and/or blown in by wind
- East Dundee surrounded by areas with spongy moth infestations that have not been treated.
 - Highest traps counts were within ¼ mile of Carpentersville and West Dundee
- High traps counts everywhere could be an indicator of treatment failure
 - Three highest trap counts in Lakewood Estates – infested and untreated areas are located within the effective radius of where the traps in Lakewood were placed
 - The presence of moths in the traps is not necessarily indicative of actual infestations
 - Per the IDOA, East Dundee's trap counts are low ("good") compared to traps counts in the region that are in the 1,000's .

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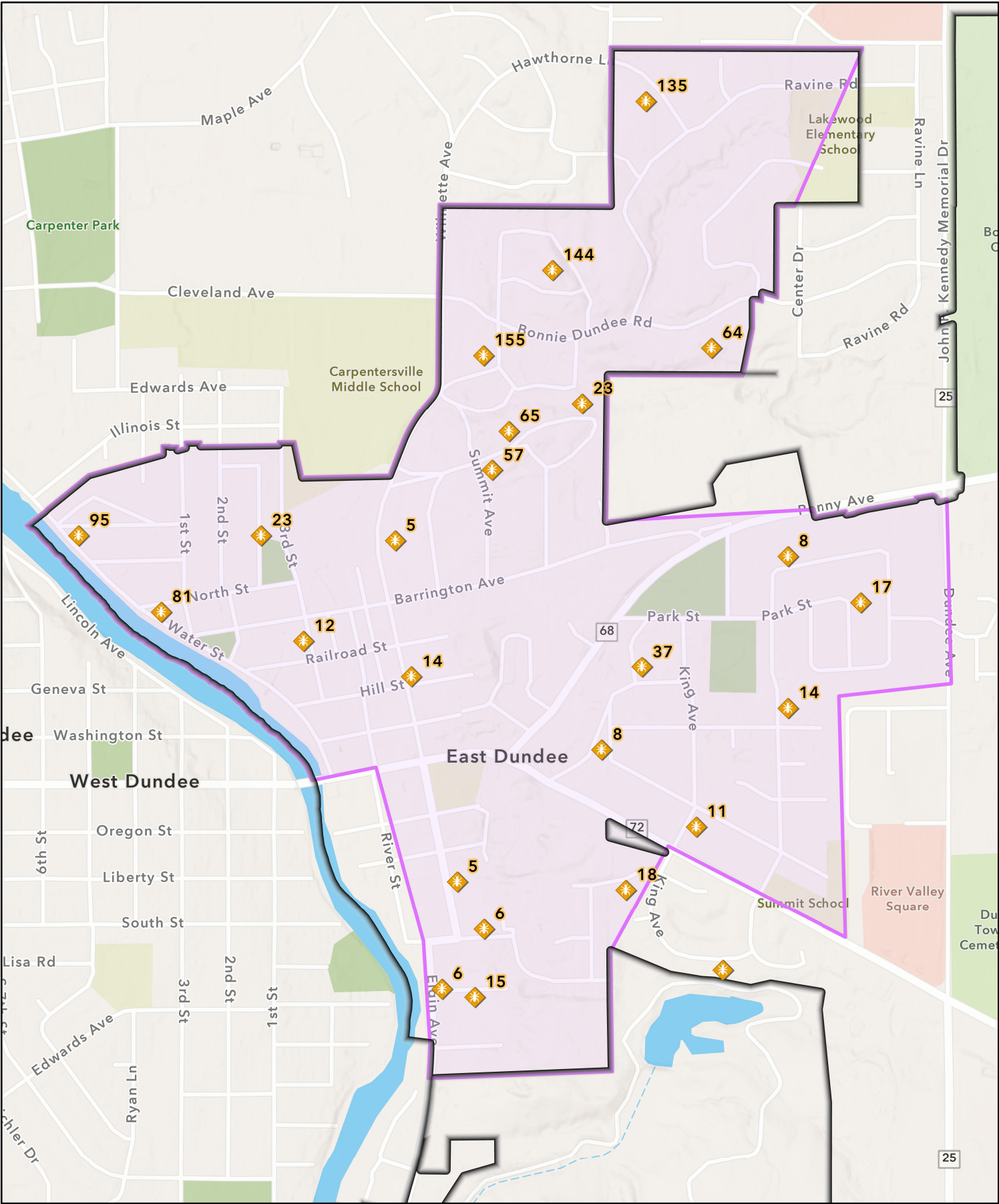


Recommendations for 2024

- IDOA believes East Dundee is in a good place due to treatment and does not believe treatment will be necessary for 10+ years.
- Continue trapping and evaluate traps on a yearly basis
 - Assess blown/flown in populations versus new/established infestations
- Monitor for females – presence of males in East Dundee is not necessarily an indicator of an actual infestation
- IDOA Sites:
 - Minimal treatment in 2024
 - Do not treat same areas in consecutive years

SPONGY MOTH TRAP LOCATIONS

Post-Aerial Treatment
Village of East Dundee



Trap Location with Trapped
Count Denoted



Btk Spray Area