

2022 Hypena opulenta Monitoring – Prepared by Robert Smith

This year, we completed another biocontrol release of *Hypena opulenta* moths at Wehle State Park and Grenadier Island. These moths are native to Ukraine and feed exclusively on pale and black swallowwort in their larval form. On June 6, we placed 20 adults in each of four cages (2 at Wehle State Park, and 2 at Grenadier Island). Like last year, the first generation produced few larvae, so we waited for this generation to pupate, emerge as adults and lay eggs. We had modest success with the second generation with the best results occurring at Cage 2 on Grenadier Island (60% defoliation) and the second best at Cage 1 at Robert Wehle State Park (40% defoliation).

2022 Cage Defoliation

Wehle State Park

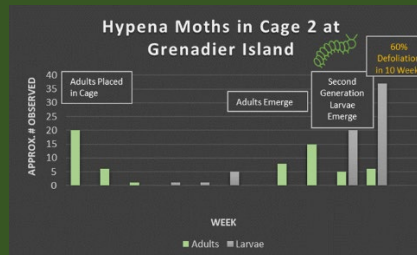
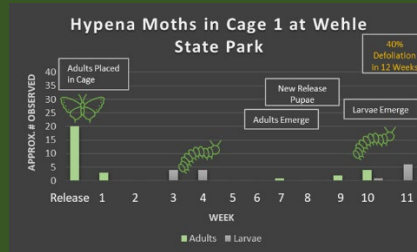
Cage 1: 40%

Cage 2: 10%

Grenadier Island

Cage 1: 0%

Cage 2: 60%



To further our efforts in establishing this biocontrol, we purchased an additional 440 larvae and 76 pupae from the Phillip Alampi Beneficial Insects Laboratory. On August 4, we released 110 larvae 10 feet from each cage and placed 19 pupae in each cage. In addition, we have engaged residents of Grenadier Island and the New York State Office of Parks, Recreation, and Historic Preservation (NYS OPRHP) to improve our overwintering surveys. A *Hypena opulenta* moth identification video has been made to help the residents of Grenadier Island that plan to look for signs of the establishment. We are also working with NYS OPRHP to organize an overwintering trail survey at Robert Wehle State Park. Our hope is that more people looking for evidence of *Hypena opulenta* moth presence will increase the chance that we find establishing populations.



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This year, we completed another biocontrol release of *Hypena opulenta* moths at four cage sites; two located at Robert Wehle State Park and two located at Grenadier Island. On June 6th, we received 40 pupae from the NYS Invasive Species Research Institute for each of our four cages. Unfortunately, only 6 adults emerged, and those adults did not produce any larvae. I observed white fungal growth on most of the pupae. This was observed by other organizations around New York that received pupae from NYISRI. Some of the pupae were sent to the Dylan Parry Lab at SUNY ESF to determine the exact cause of the lack of emergence from these pupae. We decided, like last year, to purchase additional *Hypena* to release in mid-summer. On July 24, we placed 20 adults and 12 pupae in each cage and 90 larvae 10 feet from each cage. Below is an overview of the 2nd caged releases of *Hypena opulenta* this year.

Robert Wehle Cage Defoliation:

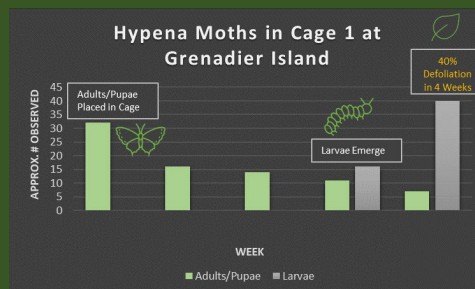
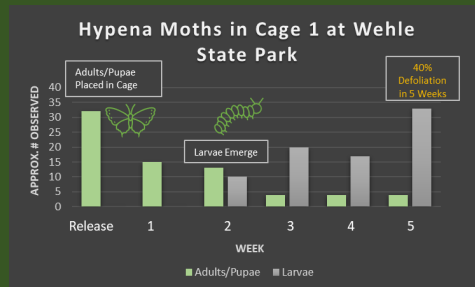
Cage 1: 40%

Cage 2: 5%

Grenadier Island Cage Defoliation:

Cage 1: 40%

Cage 2: 10%



Trail Surveys were conducted this year at Robert Wehle State Park. From June through August, park Staff, the New York Parks Invasive Species Team, and SLELO PRISM each walked a third of the trail system to search for signs of overwintering *Hypena opulenta* moths. Residents of Grenadier Island were provided a training and conducted surveys on the island. Unfortunately, no signs of overwintering *Hypena* moths were found at Wehle or Grenadier Island.

