

Protecting our Lands with help from Biological Controls:

2021 *Hypena opulenta* Monitoring- Prepared by Rob Williams and Robert Smith

2021 marks the fourth year in which SLELO PRISM and partners have released and monitored *Hypena opulenta* - a biocontrol for invasive swallow-wort (*Vincetoxicum rossicum* & *Vincetoxicum nigrum*).

On June 1st, 2021, adult *H. opulenta* were placed in four cages— two at Wehle State Park with 60 adults released, and two at Grenadier Island with 80 adults released. These cages were monitored for the presence of a new generation of *H. opulenta* larvae, and defoliation of the swallowwort.

In 2020, 10% and 90% defoliation occurred in cage 1 and 2, respectively, in 4 weeks at Wehle State Park and we released the larvae from the cages. This year, the number of larvae produced was very low and this resulted in low defoliation at both sites at this location. Since *Hypena opulenta* normally produce two generations per year, we decided to leave them in the cage to produce a second generation. We had never done this before, but we thought this would improve the chance that mating would occur and a larger second generation would result. This approach paid off at Grenadier Island, as can be seen in the graphs below, with defoliation of cage 1 at 20% and cage 2 at 100% after ten weeks. Unfortunately, the cages at Robert Wehle State Park did not produce a second generation which resulted in very little defoliation (<1%). All four cages were removed on August 16, 2021. So far, no evidence of establishment has been found, but we hope that will change as we continue to conduct releases. Additional *Hypena* releases are planned for Wehle State Park and Grenadier Island in June 2022.

