For "Public Input"

Let me first state that I am not a "Green Activist". I studied Agriculture in the late 1970's when it was the rage to use such herbicides as atrazine and many other toxic mixes of 'crop protection products' better described as pesticides. Glyphosate has been a boon to crop production replacing a toxic cocktail of long lasting (in the soil) chemicals.

I am in the very small minority that are against a blanket spray program to control (eradicate) the Gypsy Moth, and yes I am aware that it is an invasive species. I prefer to look at it as a colonizing species!

From the Internet: "... *Btk, is a bacterium found naturally in soils.*" So how long will it last if blanket sprayed? What knock-on effects will it have in coming years and possibly decades?

Btk is a 'broad spectrum' bio pesticide (a deadly bacteria) that affect (kill) Lepidoptera – an order of insects that includes most if not all butterflies and moths. From the Internet: "*Btk kills caterpillars of <u>all</u> butterflies and moths, although some species are <u>partially</u> resistant to it." Initially its intended use was in highly controlled environments like greenhouses. The forestry industry adopted Btk's use to protect its assets. But it is available to the ordinary consumer since it is deemed safe should humans come in contact with it.*

From the Canadian Tire Wesite¹ "... *BTK Insecticide kills all types of caterpillars*..." So this would include not only Gypsy Moth but other Lepidoptera caterpillars such as the Monarch, Yellow Swallow Tail, Blue Emperor, Red admiral, Luna Moth just to name a few. All these noted are present in and around the environs of Lambton Shores and specifically the Pinery Provincial Park.

Most spraying application information suggests 2 applications 2 weeks apart. They further note that rain **and** wind can play havoc with targeted applications. Let us be sure of and consider some of the intended and unintended consequences before embarking on a blanket "Spray program". Can it be deployed effectively over a two week period and not impact other Lepidoptera? Should we 'top' load a naturally occurring bacteria into the environment (soil) that may lead to the eradication and or extirpation and possibly help in driving a species like the Monarch butterfly to extinction? Only in the last few years have we seen more Monarchs returning to our area. People are today actually planting Milkweed, a plant that was classified as a noxious weed not too long ago. By eradicating the Gypsy Moth what other Lepidoptera will be wiped out and what does this do for downstream predators that feed on these insects? What domino affect are we creating in our environment?

¹ <u>https://www.canadiantire.ca/en/pdp/safer-s-Btk-insecticide-100-ml-0593770p.html</u>

There is resilience in the most affected tree population (Oak) as noted in the two pictures below taken only 3 weeks apart this summer. If we can show some patience we will witness Mother Nature in action.

A before picture just after the attack





and 3 weeks later

It has also been suggested that a cold winter could easily dissipate many of the egg masses. So to be slightly anthropomorphic 'Mother Nature knows how to take care of her own'.

Before we go meddling with Mother Nature, again, let us put aside our pathetic aesthetic wants and needs and consider the broader picture.

I for one would leave the Gypsy Moth alone and see how this unfolds for at least one more year.

Surely there are bigger, less self-serving humanitarian, issues to focus on during a pandemic!

Respectfully submitted Tino Breuer Long time/term resident, G.B. Lambton Shores