

## Conservation Corner May, 2024 by Nick Cox

### Native Orchids in the Deep River Area

I grew up in Deep River with a Mum who was an avid gardener and was also responsible for sparking my interest in growing orchids. As a child I often played in the woods near our house, but never really paid much attention to any of the native wildflowers that regularly bloomed there. Now as an adult with an interest in native orchids I have been spending my time re-exploring those same woods during the Spring and Summer looking for (and enjoying) the native orchids I find.

The most common native orchid in the Deep River area is *Cypripedium acaule* or the Pink Lady's Slipper (Photo A). It prefers to grow in areas with acidic soil ( $\text{pH} < 7$ , with 7 being neutral pH) produced by both the granitic and gneissic bedrock of the Canadian Shield and the pine needle litter on the forest floor from the white pines it prefers to grow nearby. It flowers from late May to the middle of June, although one of the effects of Climate Change I've been noticing recently is that it's flowering earlier and the flowers don't seem to last quite as long either. I am fortunate to live in a part of Deep River which is only a few minutes walk away from multiple colonies of this orchid and have been doing my best to keep an eye on them. A few years ago, a friend took me canoeing on a local lake and when we paddled into a swampy corner of the lake there were hundreds of *Arethusa bulbosa* (Dragon's Mouth – Photo B) growing there along with pitcher plants and sundews. It was quite a sight. I have also walked along some of our snowshoe trails in the summer up to the lakes at the trail's end, where I've also seen the *Arethusa* growing. It seems to flower mostly from early to the middle of June, but with Climate Change that timeline may also be shifting. Fortunately, many of the native orchids I've seen around here are on the Four Season's Conservancy (F.S.C.) property which is private property, so while the collecting of native wildflowers in that area is discouraged by F.S.C. board members, unfortunately it is not controlled. Walking along many of the ski trails in the F.S.C. during the Spring and Summer also has allowed me to spot the Rattlesnake plantain (*Goodyera pubescens*) between middle to late June to early July (Photo C).

As I drive south-east along Hwy 17 towards Ottawa there is a significant change in the bedrock. Between Pembroke and Cobden there is a large limestone outlier (mostly made up of  $\text{CaCO}_3$  and  $\text{MgCO}_3$  for the chemists in the group). This results in the soil, substrate and groundwater becoming more basic in its pH ( $> 7$ ). These kinds of conditions favour the growth of the Large Yellow Lady's Slipper (*Cypripedium parviflorum var pubescens*) in early to mid-June, which can be found in the woods east of Pembroke (Photo D). For the geologists in the group, driving down (or up) Meath Hill – depending on your direction, takes you along an ancient fault scarp which separates the Precambrian Shield rocks from the Palaeozoic limestone towards Cobden. This means that somewhere (buried most likely), is an unconformity between these two rock types. Coincidentally, the Indian River there flows along the fault line.

Apparently (according to my orchid enthusiast neighbour), there are also places in Deep River where *Cypripedium candidum*, the Small White Lady's Slipper (an endangered species) and the Rose Pogonia (*Pogonia ophioglossoides*) grow. So, my plans for this Spring and Summer are to find out if this is indeed true.

Now, you may have noticed that I have not been giving you specific locations where I've seen these native orchids growing. The reason for that is that I'm very conscious of the fact that these plants survival relies strongly on their symbiotic relationship with a specific mycorrhizal fungus living in the ground where they grow. Sadly, occasionally people in Deep River have seen these beautiful plants

in flower and thought “wow, that would look really nice in my garden” and have proceeded to dig up an entire plant or whole colony and transplanted it. This is a death-sentence for them, since the fungus they need to survive either doesn’t get transplanted in sufficient quantity, gets out-competed by other fungi in their new home, or the fungus present in the transplanted soil dies due to a lack of nutrients. Whatever happens, the plant(s) may survive for only a couple of years at best before they too succumb and perish. Regrettably, it is not just a few Deep River people who think like this, since this mindset is also commonplace among many (uninformed) Canadians too. So, the bottom line when you’re out walking in the woods, is to make sure that you take a camera with you so you can just enjoy the beauty of our native orchids where they are (*in situ*) without disturbing them.



A - *Cypripedium acaule* (Pink Lady's Slipper)



B – *Arethusa bulbosa* (Dragon's Mouth)



C - *Goodyera pubescens*  
(Rattlesnake Plantain)



D - *Cypripedium parviflorum* var. *pubescens*  
(Large Yellow Lady's Slipper)