

## Square Pond Snail Snatchers

The Square Pond Snail Snatchers is a grassroots organization dedicated to the removal of the invasive Chinese Mystery Snails from Square Pond. While in reality, we'll never be able to completely eradicate them, we want to at least keep them at bay so that they don't completely invade our shorelines. Here is the story of the Square Pond Snail Snatchers.

While the exact date of the Chinese Mystery Snails (CMS) discovery on Square Pond is hazy, we know it was around 2011. No one really knew much about CMS. However, our resident water and plant life expert, Marsha Letourneau, had some knowledge and started to educate the Square Pond Improvement Association (SPIA) about what she knew and that they were invasive. With more research, we started to learn about other lakes that have CMS and the problems they created. Some lakes reported not being able to walk in their swim area without crunching on snails. We also heard about snail die off where the smell on the lake was horrid.

In 2013, with this information in hand, it was clear that we needed to do something. A small group of divers got together and started to dive for snails. Once we observed how many there were, SPIA started hiring paid divers to eradicate snails.

After we did some exploratory dives to try to figure out how large the territory was, we then had a good idea of how much ground we had to cover. They were along the west shore of Square Pond, in approximately a 500-yard area and were seen in up to 25' of depth.

As we learned more about the CMS we found out how quickly they reproduce. According to several CMS sites they can have up to 100 offspring per litter. It was obvious that we were fighting a rapidly reproducing invader. We also learned that they can seal up their opening and float, then open up and sink somewhere else. For a few years we thought this was a myth as we didn't find them anywhere else on the lake. In the last couple of years, they have shown up randomly in other areas. We found them in small numbers indicating a single snail may have started there. It may have moved from a boat or the floating idea may be true.

Here is a timeline of what we have removed from Square Pond so far. We have tested several one-pound samples and calculated that there are about 40 snails per pound. This is the basis for estimating the numbers since we only weigh the catches and don't count each snail for obvious reasons.

Year	Square Pond Divers (in lbs)	Paid Divers (in lbs)	Total (in lbs)
2013	400	1200	1600
2014	280	1020	1300
2015	110	720	830
2016	210	830	1040
2017	355	1475	1830
2018	325	101	426

<b>2019</b>	875	246	1121
<b>TOTAL CMS extraction</b>			8,147

At 40 snails per pound, this is about 326,000 snails. These were picked out by hand one at a time. As you can see, the numbers for the paid divers declined and the Square Pond Divers have increased over the years. The costs for paid divers was draining our SPIA funds at about \$5,000 per year. Our recurring costs now for our Square Pond dive team is about \$1,700 per year.

The number of volunteers has been increasing. The numbers for Square Pond Divers include snorkelers as well. In 2019, we purchased a surface breather. This is a battery powered compressor that sits in a boat and has two hoses with regulators attached. People don't need to be dive certified and several people have used this equipment to extract snails. This gives us more bodies in the water and a higher yield.

In the last 6 years, we have had dive equipment donated and have purchased some as well. Some of us have our own dive equipment and SPIA owns some to loan out. SPIA pays for filling tanks and the general maintenance for the tanks. All of this is at a cost but has been approved by SPIA members as they all deem this as necessary to protect our lake.

We also have volunteers for surface support. People come in kayaks, pontoon boats and even a peddle boat to hover over divers in the water and protect them from boat traffic. These people also help with the after-dive work of dealing with equipment and snails. The movement to join the Square Pond Snail Snatchers is growing in popularity. We even give everyone a cool T-shirt if they participate. To date, we have had more than 50 volunteers helping.

We strongly believe that we can continue to maintain a strong group of volunteers to keep the growth of CMS at bay. We also now have an established infrastructure for invasive plants. We know we won't ever get rid of CMS but will hopefully keep them from invading our shores.