

ENVIRONMENT BULLETIN

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Tape Grass

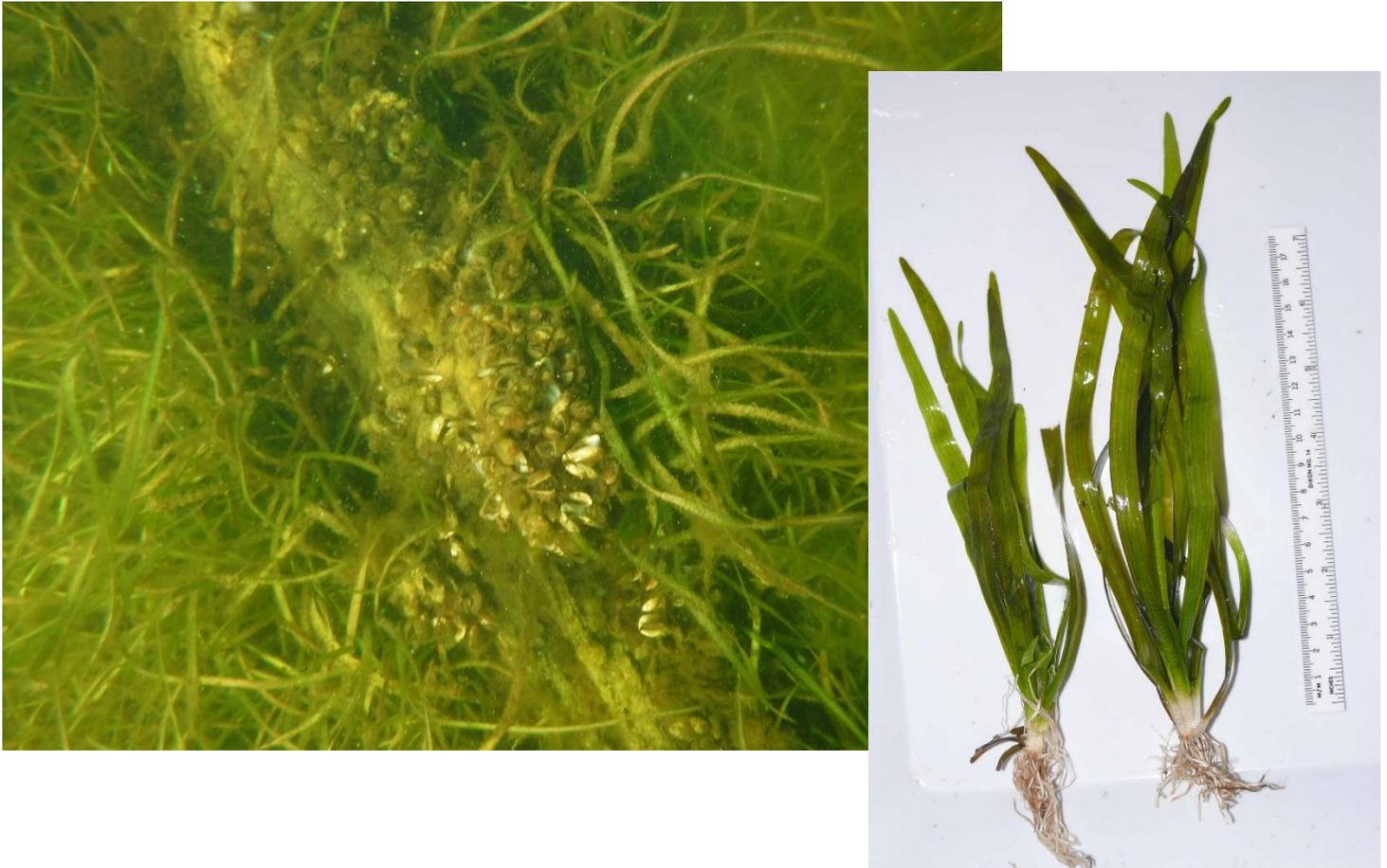
Tape grass (*Vallisneria Americana*), also known as eel grass, is a very common perennial aquatic plant in temperate and sub-tropical climates around the world. It is native to Canada and can be found in lakes, streams and ponds. It is a common aquarium plant and is an important food for wild ducks.

This plant is easy to recognize because it has long thin leaves that grow in a clustered rosette with its intertwined roots lodged just below the sediment surface. We also know this plant because, during middle to late August in recent years, we see large mats of these plants floating into our waterfronts.



Tape grass can be found almost everywhere along the shoreline of White Lake. It also forms large underwater meadows, and leaves can attain several feet in length. The upper parts of the plant can sometimes be seen floating on the surface of the lake.

The photos below show tape grass growing on the lake floor, and as seen out of the water.



Tape grass plants found along the immediate shoreline are well rooted between rocks and other debris. For this reason, the action of wind and waves seldom displaces them from their positions. It is possible that, since water clarity in the lake has increased and zebra mussels have drawn nutrients to shoreline areas, that tape grass beds have expanded into deeper water where sediments are not very dense giving a poor foothold to tape grass colonies. In these deeper areas, sediments are very fine in texture and do not have the 'holding' power of the rocky shoreline. This situation is made worse by the relatively shallow penetration of tape grass roots into the sediment.

So why are we seeing these rafts of tape grass floating on the lake?

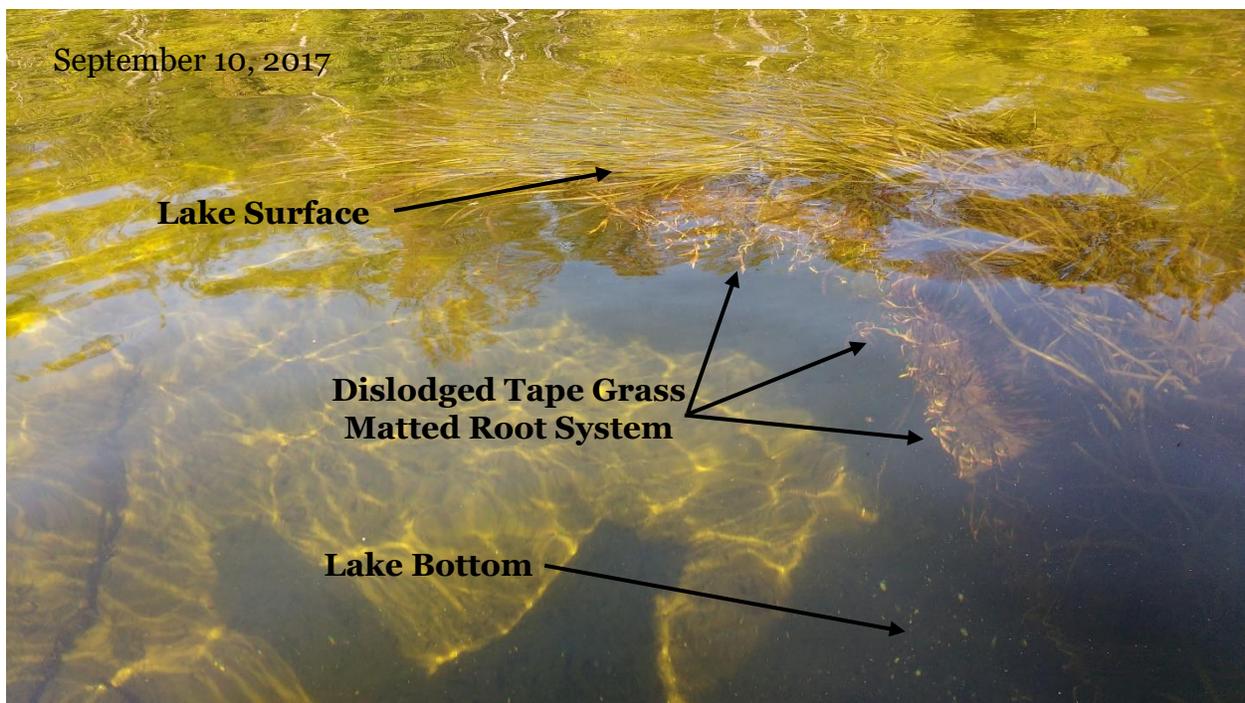
By late summer, tape grass plants in deeper water have grown to lengths of up to three feet and are now close to the surface of the lake. At the same time, water levels in the lake

are steadily decreasing as the White Lake dam is adjusted to meet its bi-weekly target levels. Also, fall winds arrive resulting in significant waves which transfer energy to the tape grass beds. An added factor is the wake disturbance produced by powered vessels which send large waves crashing into the shoreline, stirring up the bottom of the lake.

The net result of all of these factors can be seen in the photograph below taken near the western shore of the lake opposite Stanley Island.

As wave action takes hold of the tape grass beds, the root system loses its grip in the fine sediment and begins to peel off like a carpet being lifted at one end. Any sediment adhering to the roots is washed away and the entire plant mat begins to float. Eventually, the tape grass bed becomes completely detached from the bottom of the lake and can now float freely. The same wind that helped dislodge the tape grass mat will now deliver it to a cottage shoreline.

We have observed this phenomenon in a number of locations around the lake and believe it likely that this will become an annual event. The formation of tape grass mats is a natural phenomenon and part of the plant's life cycle.



What can we do about this?

When faced with a large mat of tape grass on our cottage shoreline, one has very few options: 1) leave it there as it will eventually decompose; 2) remove it using a rake; 3) hope that the wind changes direction and the whole thing becomes somebody else's problem!

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