SAV in (and out of) the classroom

Rebecca Houser
Rebecca.houser@dec.ny.gov

Chris Bowser
Chris.bowser@dec.ny.gov
Concept in 2015...
Wild Celery Data Log

School: __________________________ Teacher/Grade: __________________________

Name(s): _______________________________________________________________________________________

---

### Daily Monitoring

<table>
<thead>
<tr>
<th>Date</th>
<th>Water Temperature (° F)</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td></td>
<td>Anything growing on leaves, change in color, plants getting bigger</td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Weekly Monitoring

<table>
<thead>
<tr>
<th>Date</th>
<th>Water Temperature (° F)</th>
<th>Nitrate (ppm)</th>
<th>Height (centimeters)</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### WATER CELERY

**Vallisneria americana**

**Description**

*Vallisneria americana*, commonly called wild celery or water celery, belongs to a category of plants known as submerged aquatic vegetation or SAV. SAV grows below the low tide level in the Hudson.

This native perennial is found in shallows in the freshwater part of the estuary. Its long, flat, ribbon-shaped leaves have finely toothed edges, blunt rounded tips, and a light green stripe running down the center. They grow in clusters (a rosette) from the base of the plant.

Each water celery plant has finely branching (fibrous) roots. In late summer, female plants have tiny white flowers that grow at the ends of stalks that reach the water’s surface. Just like a plant on land, it requires light, water, and nutrients to survive and uses photosynthesis to convert sunlight into food.

**Why are underwater plants important?**

Underwater plants provide food, habitat and oxygen. Water celery is one of the most valuable kinds of SAV in the Hudson. Dense beds of this plant shelter young fish and blue crabs. Small invertebrates feed on and attach themselves to the stems and leaves. Migratory waterfowl feed on water celery and the animals that live on the plant.

Underwater plants keep the water healthy.

SAV helps to keep our river healthy by absorbing excess nutrients like nitrogen and phosphorus. The plants work as a natural filter to trap sediment. Their roots provide stability and slow shoreline erosion. Through photosynthesis, these plants produce oxygen necessary for the survival of other underwater organisms.
Challenges for 2017...

New sites? Nutten Hook?

Competition with spiny naiad or other SAV

Timing of schools and student availability

Continued work on pedagogy

Genetic diversity issue
Thank You!