WAYNE COUNTY
SOIL & WATER CONSERVATION DISTRICT

Aquatic Plant Management: Benthic Mats

Benthic Mat Building Class

(Space is limited 12 participants per class)

July 2nd—3:00-5:00 & July 9th—6:00—8:00

Cost per person is $45.00 Register by e-mail

wayneswcd1@rochester.rr.com

or call 315-946-4736

What is a Benthic Mat and How Does it Work?

A benthic mat (also known as a benthic barrier/weed mat/bottom screen) is a mat that is installed at the bottom of a body of water to prevent or inhibit the growth of aquatic plants. It consists of a dark fabric or material that blocks sunlight and is held against the bottom by weights. Without sunlight, plants cannot photosynthesize and do not grow.

Benthic mats can be up to 100% effective in controlling aquatic plants. Both nuisance weeds and invasive plant species can be controlled with this method. Existing vegetation can be removed or new vegetation growth can be prevented. This method is not selective and will target any sediment dependent species including: native aquatic plants, invasive aquatic plants, and bottom dwelling organisms.

Benthic mats are one of the safest and ecologically sound physical weed control techniques. The materials are relatively inexpensive and are usually effective for several years.

Installation should be in late May or early June after fish have spawned. The less plant material present before installation, the more successful the screen will be in staying in place. When mats are removed after 4-6 weeks, there is little to no plant growth for the rest of the season.

Types of Benthic Mats:

Framed

+easily covers small areas

+less fabric movement

-frames can be bulky and hard to store

Weighted Sheet

+can cover large or small areas

+easy to roll up and store

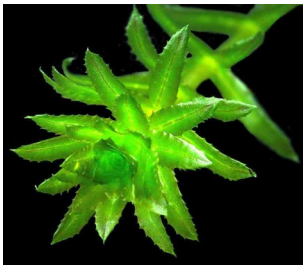
-may require more maintenance

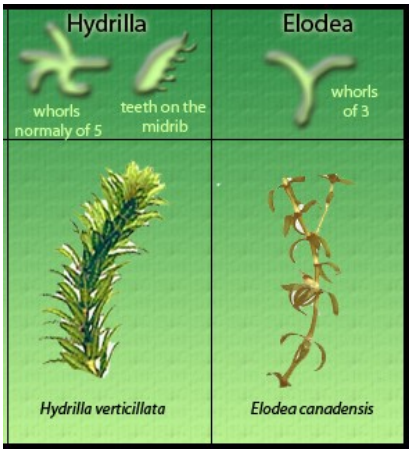
What invasive aquatic plants can a benthic mat remove?

These are just a few common examples of invasive species that can be removed with a benthic mat. Remember, any rooted aquatic vegetation (native or invasive) can be removed.

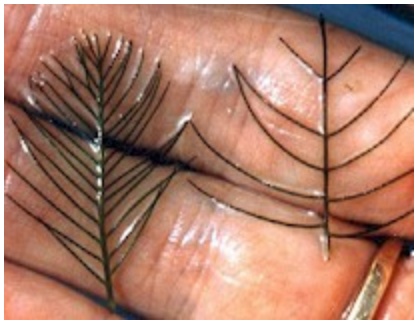
Hydrilla (*Hydrilla verticillata*)

- Pointed, bright green leaves about 5/8" long
- Leaves grow in whorls of 3-10 along stem, 5 whorls most common
- Leaves have small teeth on the edges
- Floating white flowers and small, white/ yellow, potato-like tubers attached to the





Don't confuse invasive Hydrilla with native Elodea!



Don't confuse invasive Eurasian water-milfoil (left) with native Northern water-milfoil (right)! They have different numbers of leaflet pairs on their stems.

Eurasian Milfoil (*Myriophyllum spicatum*)

- 3-4 feathery green leaves whorled around stem with reddish-brown tip
- 12-21 pairs of leaflets on a stem that branches near the surface (native leaflets have 7-10 pairs)
- Can be found in dense mats
- Leaflets will collapse when removed from water

Water Chestnut (*Trapa natans*)

- Annual floating leaf plant
- Bright green, triangular-shaped toothed leaves
- One rosette can produce up to 20 sharp, spiny pods with 12 seeds each that are viable for up to 12 years

Don't confuse invasive Water chestnut with native Water lily or Spatterdock! Their leaves have distinct shapes for identification.

For more information visit www.waynecountyNYsoilandwater.org