

# Hydrilla in the Croton River

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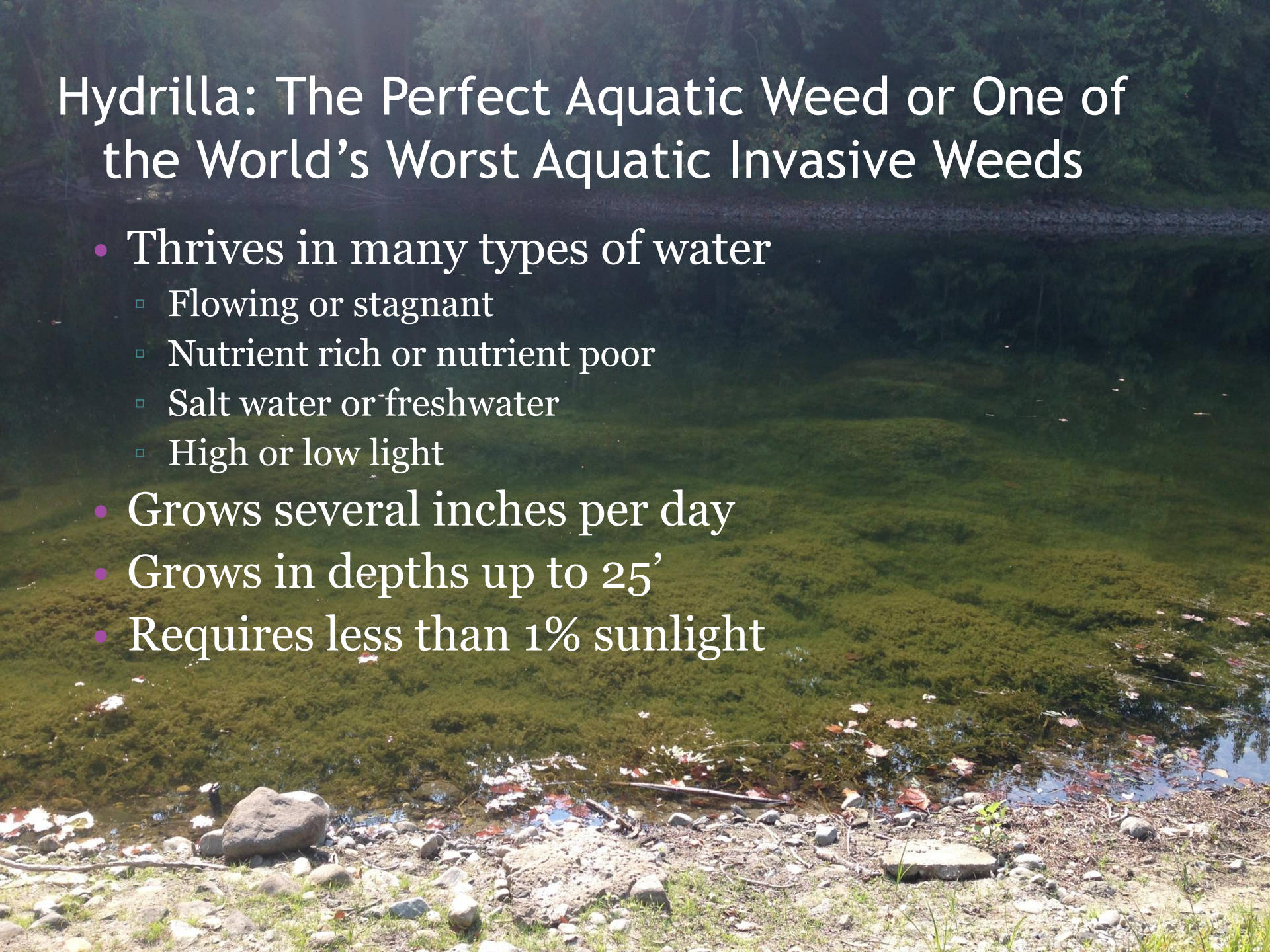
Hudson River Sloop *Clearwater*

# Invasive Species

- Native: a species that was found in the region prior to the Dutch settlement
- Non-native: a species that was introduced to the area, but has not shown any negative impacts
- Noxious: a species that has adverse effects to agricultural crops, natural ecosystems, or humans and animals
- Invasive:
  - Non-native
  - Causes harm to the economy, ecology, or human health
  - Negative impacts outweigh positive impacts

# Hydrilla: The Perfect Aquatic Weed or One of the World's Worst Aquatic Invasive Weeds

- Thrives in many types of water
  - Flowing or stagnant
  - Nutrient rich or nutrient poor
  - Salt water or freshwater
  - High or low light
- Grows several inches per day
- Grows in depths up to 25'
- Requires less than 1% sunlight





# Hydrilla: The Damage Done

## Environmental

- Mats surface of water, decreasing light
- Forms a monoculture and displaces native vegetation
- Can create algae blooms
- Decreases oxygen levels which can lead to fish kills
- Can grow toxic algae linked with Avian Vacuolar Myelinopathy (AVM) which kills American coots and bald eagles

## Economic

- Clogs waterways which may lead to flooding
- Hinders recreational activities (boating, swimming, fishing)
- Clogs water treatment plant intakes
- Threatens tourism economy
- Decreases value of waterfront property

# How can hydrilla spread?



## 2014 HYDRILLA OCCURRENCE IN THE CROTON RIVER



Delineation by SOLitude Lake Management (previously Allied Biological, Inc.)



# The Croton River Situation

- Very unique infestation
- Almost stagnant water in some places, white water in others
- Fresh water above the Black Rock Park dam, salty below
- Silty to rocky river bottom
- Runs directly into an estuary
  - Tides allow hydrilla to spread upriver



Photo by SePro



Same area is now almost entirely hydrilla (water is down significantly) – 10/14/2015



Photo by SePro



Notable topped-out hydrilla in 3 – 4 feet looking upstream at Black Rock – 10/14/2015

# Hydrilla in Florida





# Management Options

- Physical
  - Benthic barriers, dye, shade balls
- Biological
  - Introduction of a predator species
- Mechanical
  - Removal via cutting/dredging/harvesting
- Chemical
  - Herbicides (typically **endothall** and fluridone)



**Croton River  
treatment option**

# Contact Information

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