

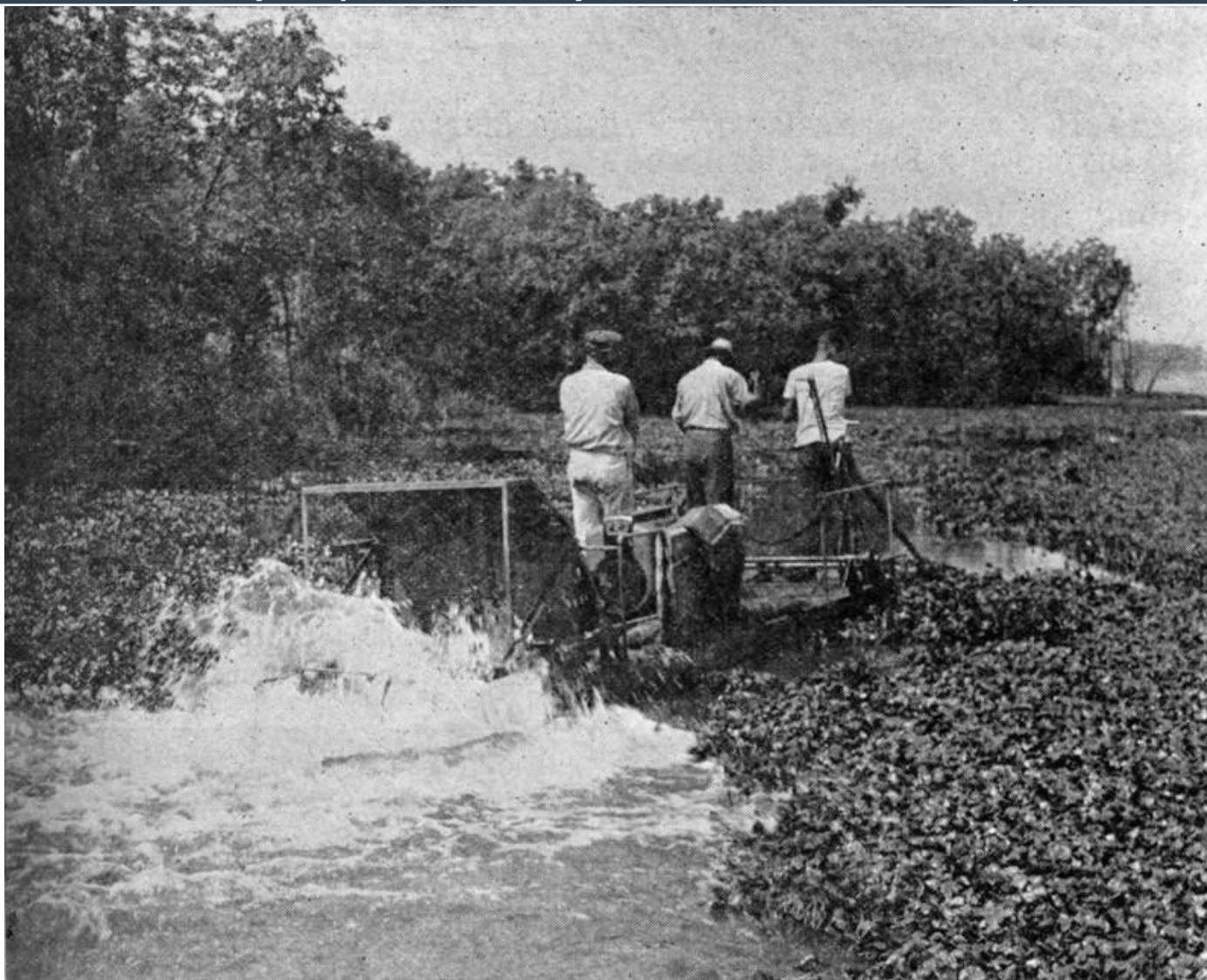
# MARYLAND DEPARTMENT OF NATURAL RESOURCES

## Management Strategies for Water Chestnut (*Trapa natans*): A Historical Perspective



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## Management Strategies for Water Chestnut (*Trapa natans*): A Historical Perspective



MARYLAND DEPARTMENT OF RESEARCH AND EDUCATION, Chesapeake Biological Laboratory, Solomons, Maryland.  
Extract from the Maryland Tidewater News. Volume 12, Number 1. Supplement Number 5. June 1955.

# Water Chestnut Threatens Disaster To Maryland Water Areas



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- Annual, freshwater macrophyte
- Rooted, long, slender grows from bottom
- Depths of 6" to 16', does best in 2' to 6"
- Shiny green fan shaped leaf toothed near tips

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*Trapa  
bispinosa*-  
species used in  
Asian Cuisine



### Water Chestnut Historical Distributions in MD



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- Motorboats and sailboats unable to navigate in the infested areas
- Sharp decrease in hunting/fishing grounds
- Impacts to submerged aquatic vegetation

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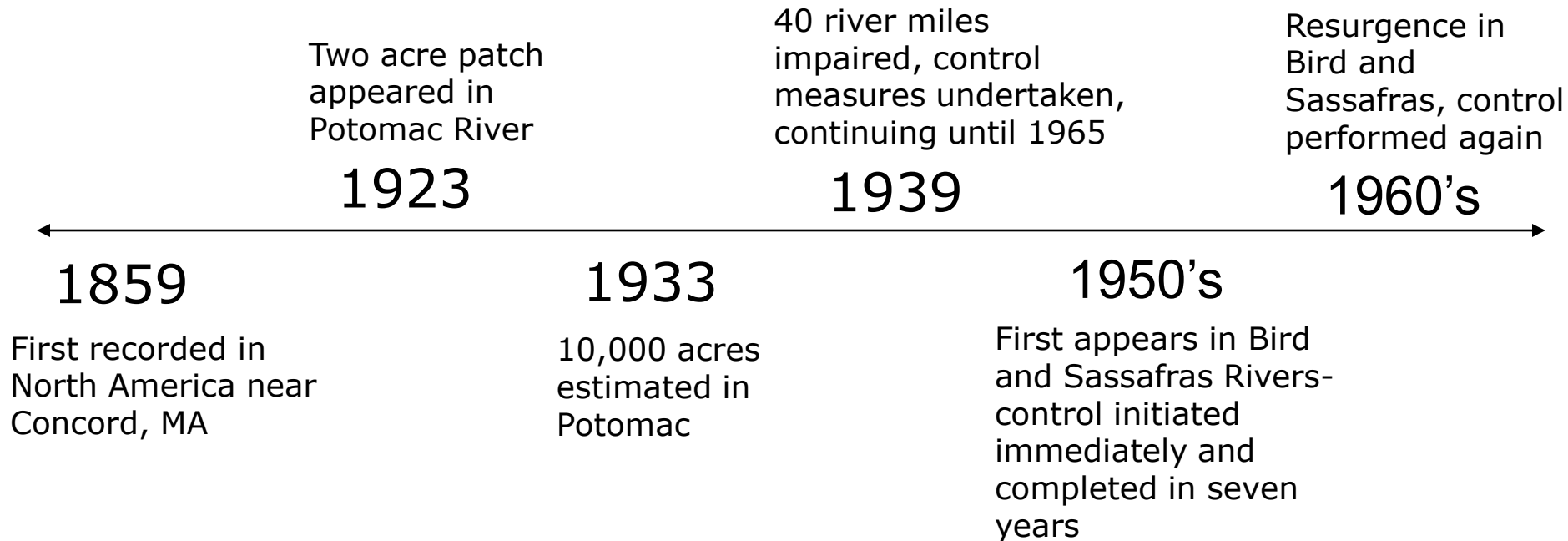


- Seed has 4 protruding barbs the size of a hickory nut that can penetrate shoe leather
- Seeds can remain viable for up to 12 years



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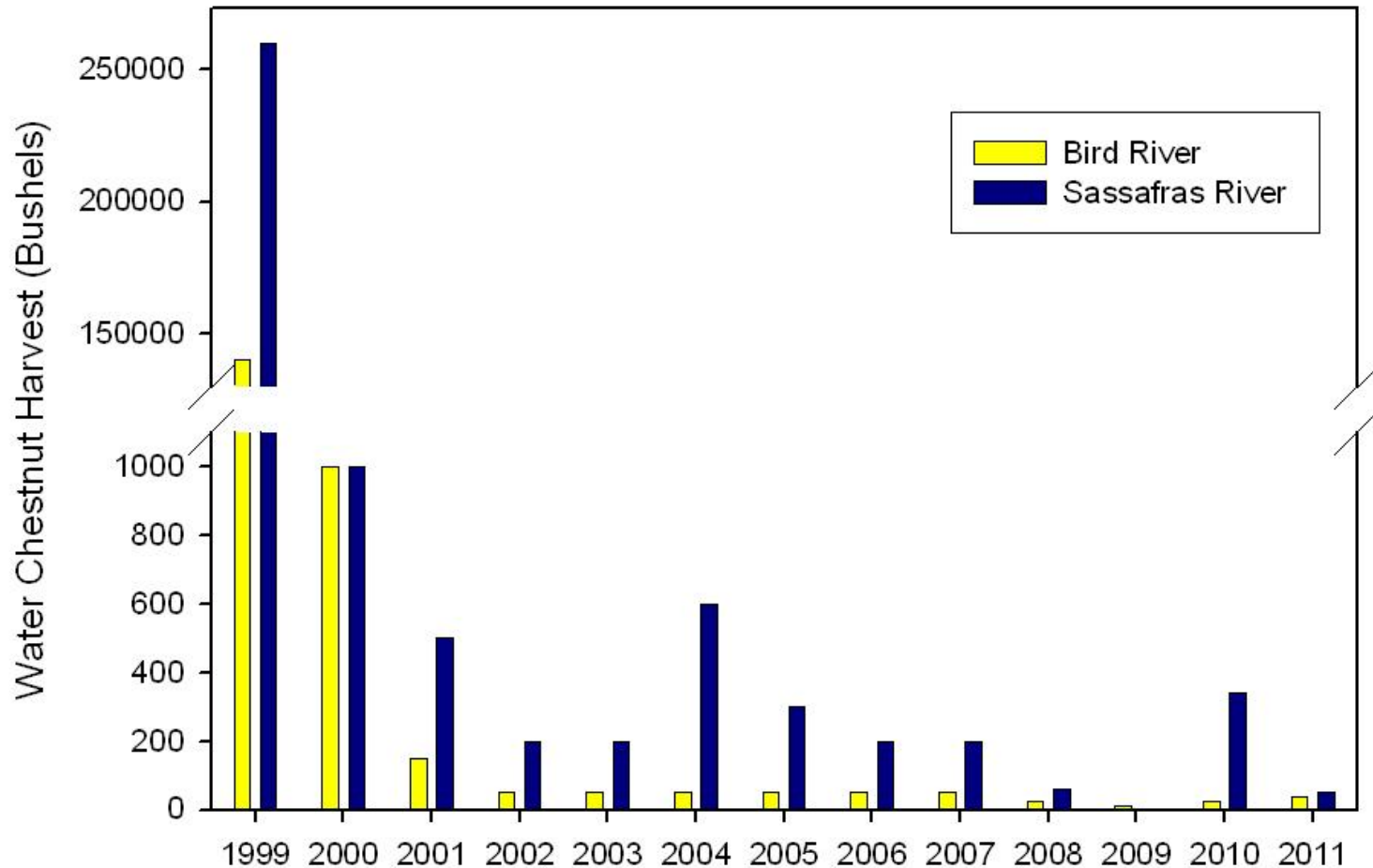
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### Water Chestnut Eradication



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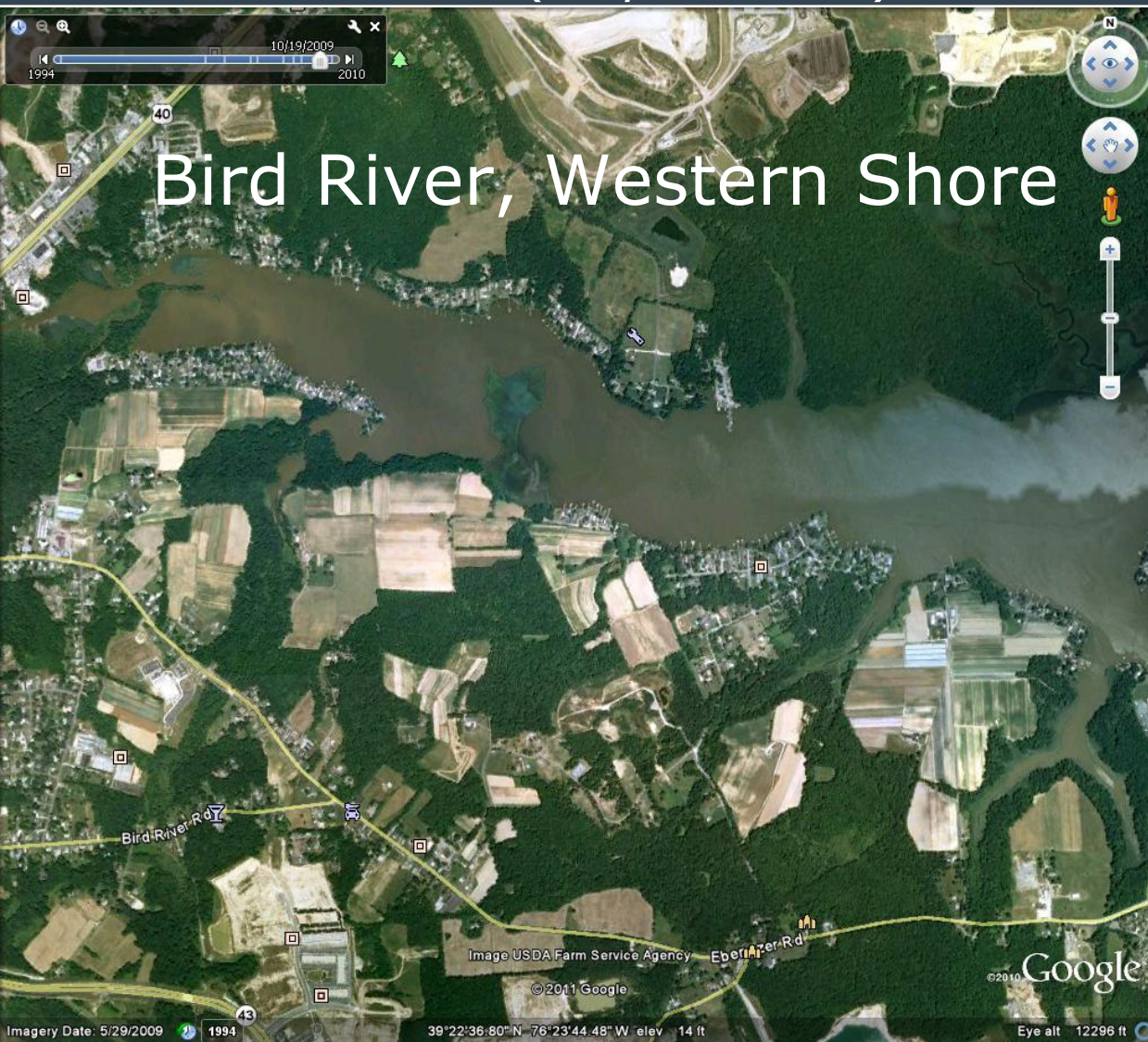
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### Sassafras River, Eastern Shore



- 20 miles long
- Watershed is 97 square miles



## Bird River, Western Shore

- Watershed is 26 sq. miles

## Plant Physiology Timeline

- Mid-May: central rosettes emerge from the water
- Mid-June: secondary rosettes emerge, central rosettes forming flowers
- Early July: secondary rosettes flowering, mature seeds already viable on central rosettes
- Late July: hundreds of viable seeds present on each plant

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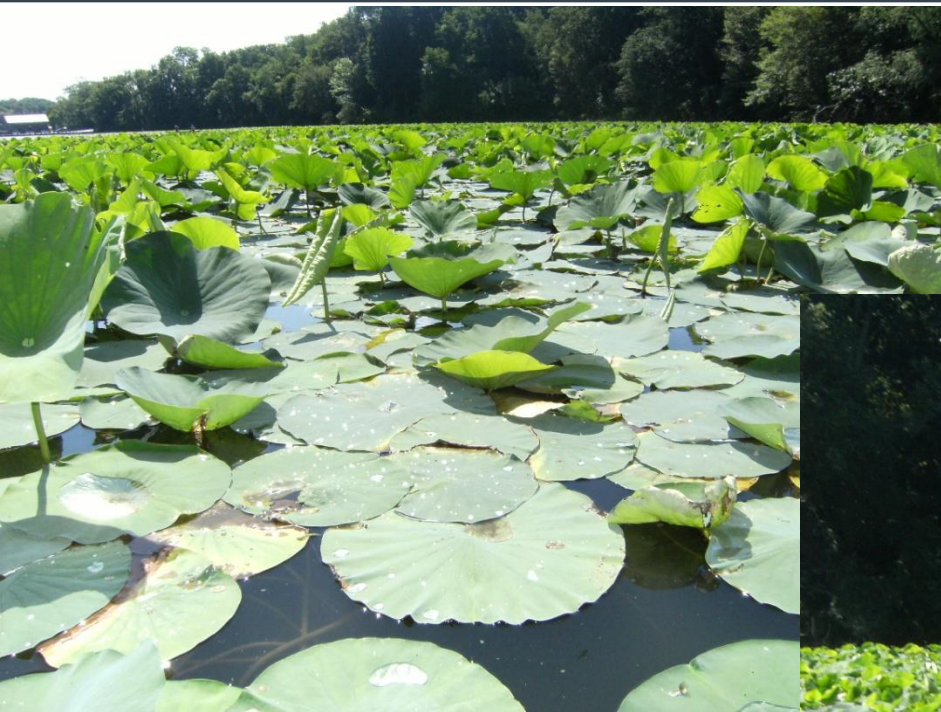


### Challenges to manual removal

- Funding
- Manpower
- Vessels
- Location-aerials
- Access to infested areas
- Removal and disposal

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- Volunteers crucial to the success of this effort

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### Starkey Farm Pond Eradication Project



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## *Trapa natans* as an Emerging Threat

- Potential for significant economic impacts to infested waters
- Loss of recreational use
- Expensive removal efforts
- Impacts to SAV