Statewide Aquatic Invasive Species Management in Texas

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Aquatic Invasive Species Management in Texas

- Cost of effective AIS management: ~$45M / year
- TPWD *total* annual AIS budget historically ~$1.4M
- Legislature allocated ~$3.2 M / year state funds to TPWD Inland Fisheries since fiscal year 2016
  - 80% Active Management (60:40 Aquatic/Riparian Plants)
  - 15% Outreach and Prevention
  - 5% Research
- Federal boater access / ANS grant funds and partner funds augment state-funded efforts
- Requesting increased funds from Legislature in 2025 to offset ever increasing costs of goods/services

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Aquatic Invasive Species Working Group

- Working group approach implemented for all FW AIS management – interdivisional/across multiple teams
- Working group structure – co-chairs & technical committees
    - Aquatic Plant Management
    - Riparian Restoration
    - Outreach and Prevention
    - Media Communications
    - Research Coordination
- Semi-monthly meetings of committee chairs & monthly committee reports
- Annual/biennial reports/work plans for senior leadership and dissemination (e.g., Legislators)

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Prevention

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Public Awareness Campaigns

- Protect the Lakes You Love - Clean, Drain, Dry call to action
- Focus on preventing the spread of AIS by day-use boaters
- Messaging refined through surveys/focus groups
- Billboards, lake signage/stencils, gas stations, digital pre-roll videos, YouTube pre-roll videos, Pandora/other digital radio (geofenced), social media, registered boaters & marinas mail/email, print ads, posters to license retailers, social media

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Public Awareness Campaigns

- Never Dump Your Tank
- Focus on preventing aquarium dumping
- Messaging via video and informative webpage
- Digital dynamic video ad campaign on Meta

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Campaign/Media Results (FY24)

- Over 68 million PTLYL campaign impressions
- Over 2.6 million NDYT impressions and 4,382 click throughs
- 6 press releases, 111 media articles/stories on AIS, reach for these approximately 500M
- In-house Meta/Twitter posts yielded approx. 1.4M impressions

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Early Detection

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Aquatic Vegetation Early Detection

- Lake surveys
- Boat ramp surveys high-risk lakes
- Reports from the public
- Facilitates rapid response efforts
- Eradication at some Texas lakes

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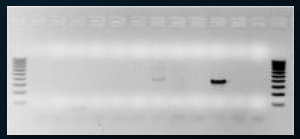
Zebra/Quagga Mussels Early Detection

- Nearly 50 lakes monitored by partner collaboration
- Environmental DNA
- Plankton samples
- Settlement samplers & shoreline substrate surveys
- Partner inspections (e.g., river authorities, facility operators)



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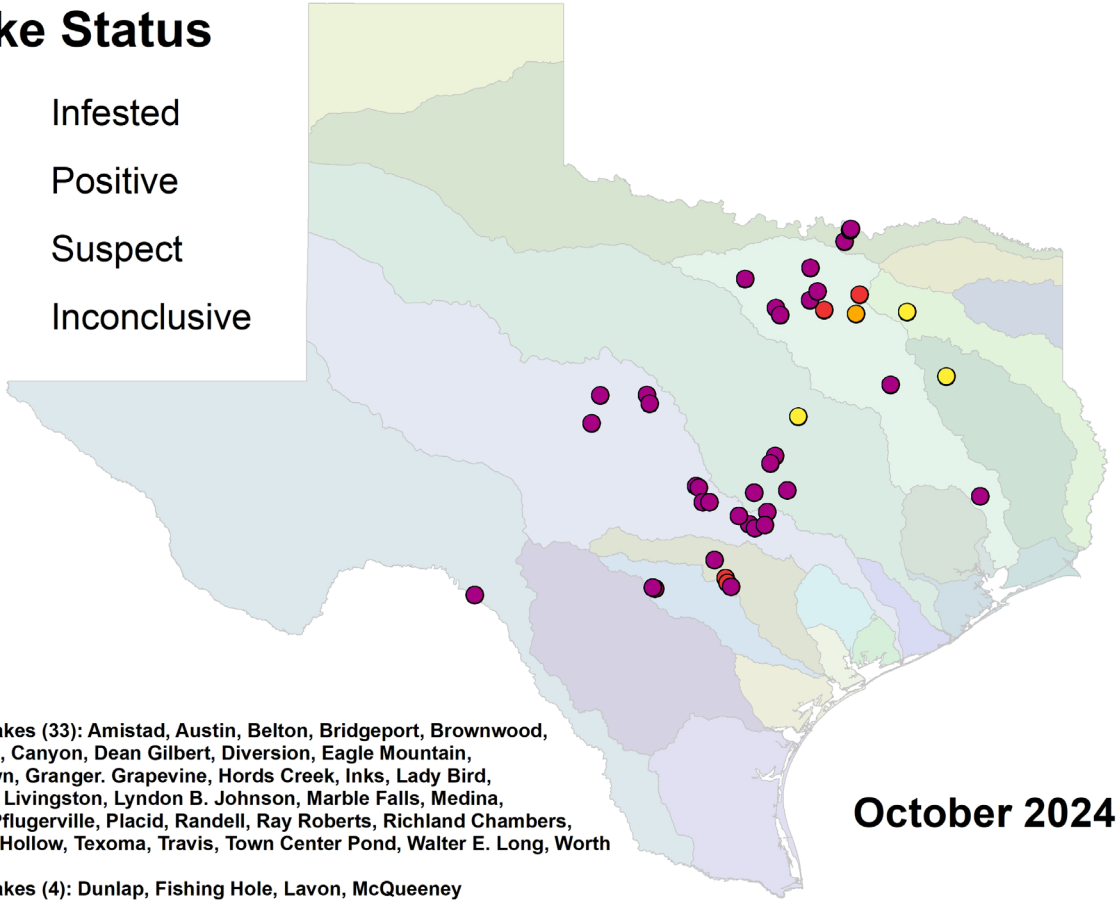
Lake Status



Infested Lakes (33): Amistad, Austin, Belton, Bridgeport, Brownwood, Buchanan, Canyon, Dean Gilbert, Diversion, Eagle Mountain, Georgetown, Granger. Grapevine, Hords Creek, Inks, Lady Bird, Lewisville, Livingston, Lyndon B. Johnson, Marble Falls, Medina, O.H. Ivie, Pflugerville, Placid, Randell, Ray Roberts, Richland Chambers, Stillhouse Hollow, Texoma, Travis, Town Center Pond, Walter E. Long, Worth

Positive Lakes (4): Dunlap, Fishing Hole, Lavon, McQueeney

Suspect Lakes (1): Ray Hubbard

October 2024

Rapid Response

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Rapid Response

- Only possible if early detection occurs
- Giant Salvinia – booms and herbicide treatments
- Zebra Mussels – plastic sheeting & chemical treatments

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Long-term Management: Riparian Plants

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Arundo – Texas Hill Country

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Arundo – Texas Hill Country

- Healthy Creeks Initiative
  - Nearly 400 landowner partners, TxDOT, river authorities, cities, and others across five watersheds (Pedernales, Blanco, Guadalupe, Medina, Llano)
  - Continued support for Nueces River Authority Pull.Kill.Plant. Initiative (Nueces & San Felipe Creek)

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Saltcedar – Upper Brazos River

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- Upper Brazos River (above Possum Kingdom Res.)
- Primarily aerial herbicide application
- Some past cottonwood planting & biocontrols present
- 2016-2024: 22,839 acres treated (~150 landowners)
- Channel shape monitoring ongoing & much past research

Elephant Ear – Llano River

- North & South Llano River
  - Herbicide spot treatments
  - 1 or more surveys/treatments per year
  - 52+ river miles under management over ~15 years
  - Passive revegetation

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Integrated Pest Management: Aquatic Plants

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Objectives for Managing

- Create and maintain access for anglers and boaters on public waters
- Prevent the spread to other water bodies
- Conduct rapid response activities when new introductions occur
- Use integrated pest management to achieve functional eradication
    - Mechanical – floating booms, removal by hand
    - Chemical – herbicides and algaecides
    - Biological – insects and fish

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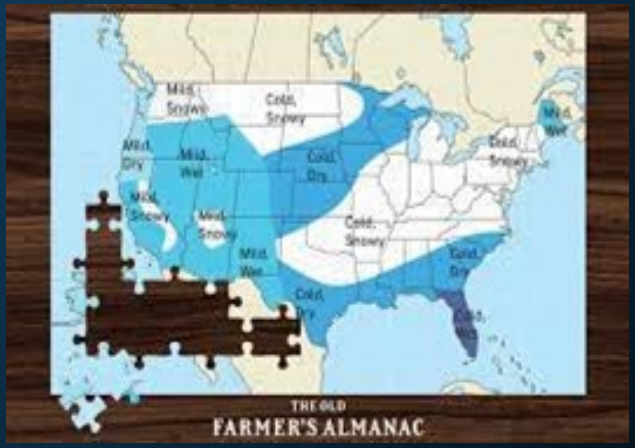
Natural Controls



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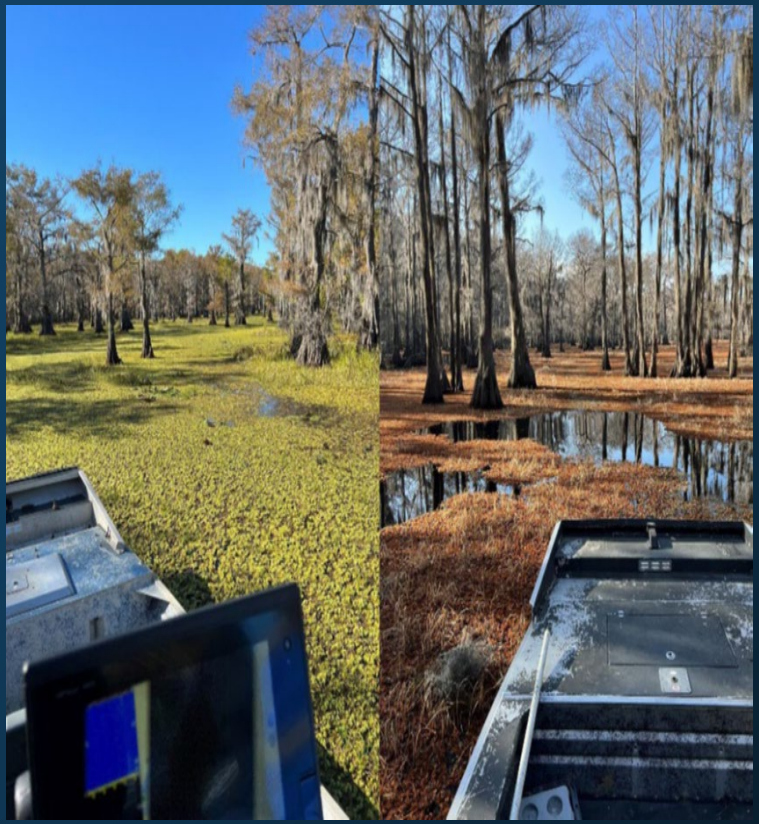
Giant Salvinia Management



- Current tools
  - Herbicides
  - Giant salvinia weevils
  - Floating booms
- 25 Reservoirs
- 7 River systems
- 2 Extirpated
  - Lake Pinkston
  - Lake Gilmer
- Acres treated per FY
  - FY16 – 9,179
  - FY17 – 22,609
  - FY18 – 13,075
  - FY19 – 17,604
  - FY20 – 15,087
  - FY21 – 13,362
  - FY22 – 14,762
  - FY23 – 13,199
  - FY24 – 8,793

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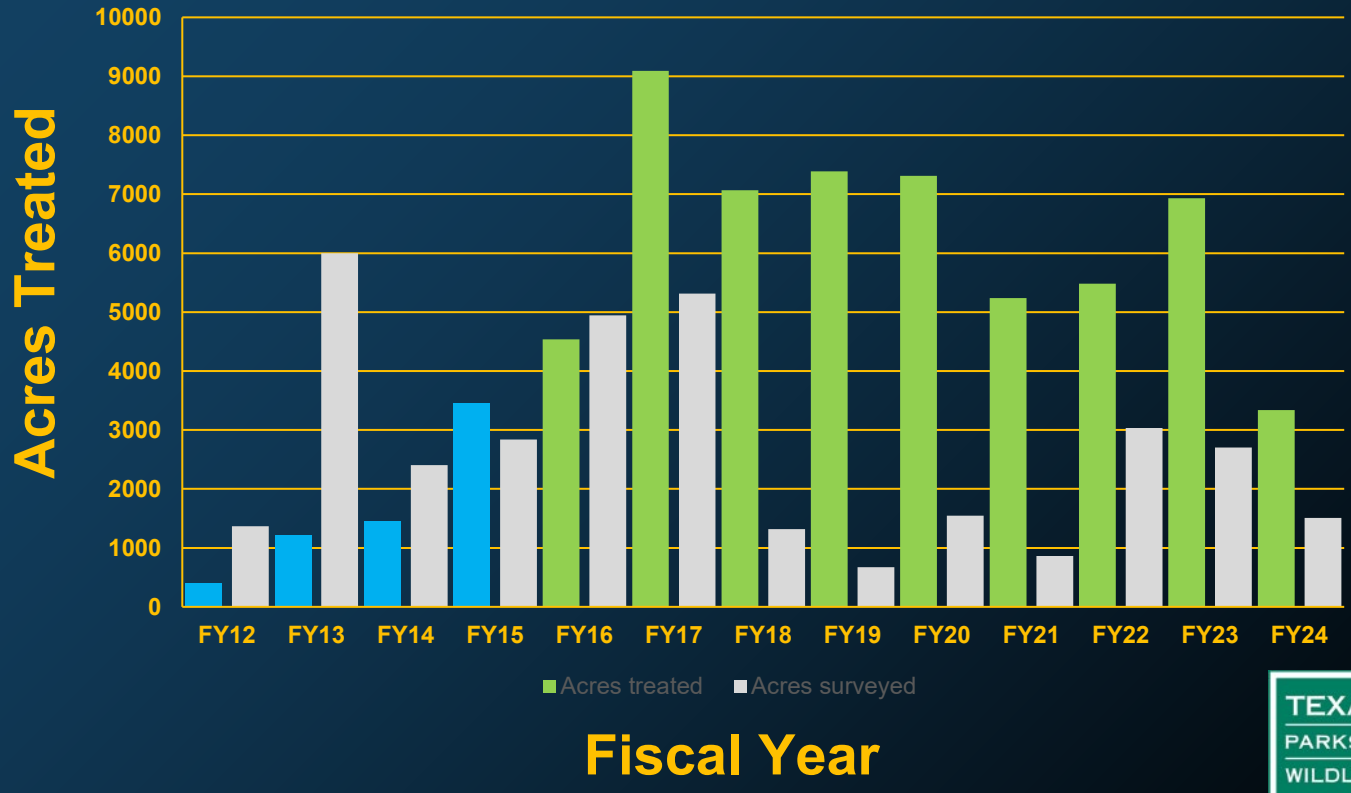
Herbicide Treatments At Caddo Lake



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Giant Salvinia Weevils

- 15 Total water bodies
  - ~83,207 released in FY24
    - Toledo Bend Reservoir
    - Lake Naconiche
  - Self-sustaining populations
    - Caddo Lake
    - Lake Murvaul
    - J.D. Murphree WMA
    - Toledo Bend Reservoir
    - Sheldon Reservoir
    - Lake Naconiche
    - Lake Nacogdoches*
    - Lake Raven

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Water Hyacinth Management

- Current tools
  - Herbicides
- 58 Reservoirs
- All major rivers
- Susceptible to freezes
- Vast seed bed
- Acres treated per FY
  - FY16 - 535
  - FY17 – 3,434
  - FY18 – 1,335
  - FY19 – 1,427
  - FY20 – 1,036
  - FY21 – 2,067
  - FY22 – 3,447
  - FY23 – 2,543
  - FY24 – 7,233

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Crested Floating Heart Management

- Current tools
  - Herbicide
    - ProcellaCOR
- 4 Water bodies
- No treatments in FY24

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Yellow Floating Heart Management

- Current tools
  - Herbicide
    - ProcellaCOR
- 2 Water bodies
  - Moss Lake
    - FY16 – 4
    - FY18 – 42
    - FY19 – 15
    - FY20 – 6
    - FY21 – 3
    - FY22 – 1
    - FY23 – 0.5
    - FY24 – 1.5

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Hydrilla Management

- Current tools
  - Herbicides
  - Grass carp
- 6 Water bodies
  - FY22 – 103.6 acres
  - FY23 – 68.0 acres
  - FY24 – 45.0 acres
- Hydrilla Position Paper
  - Swimming areas
  - Camp sites
  - Shoreline access
  - Boat ramps
  - Boat lanes

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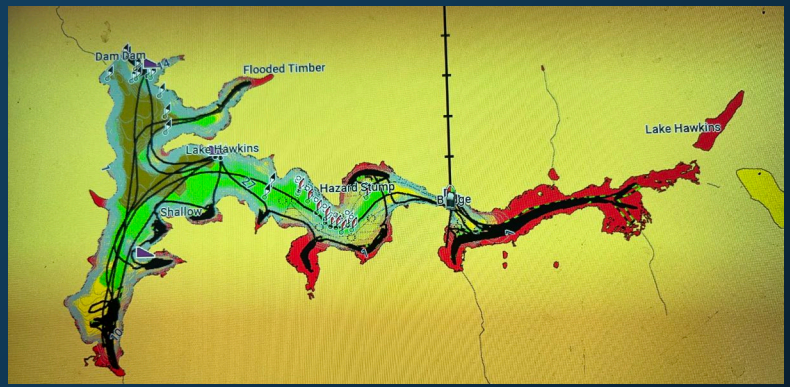
Eurasian watermilfoil Management



- Current tools
  - Herbicides
- 2 Water bodies
  - FY23 - 50.3 acres
  - FY24 – 42.3 acres

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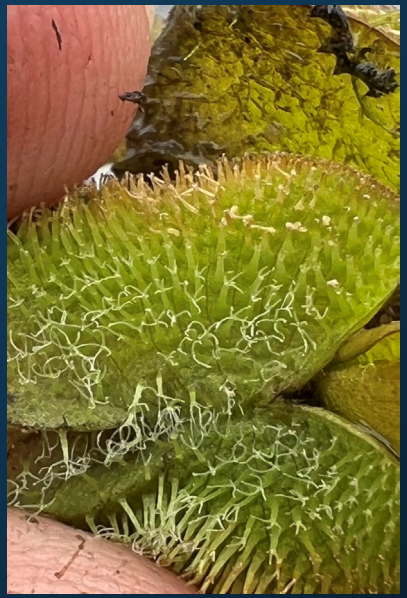
Common Salvinia Management



- Current tools
  - Herbicides
  - Floating booms
- 4 Water bodies

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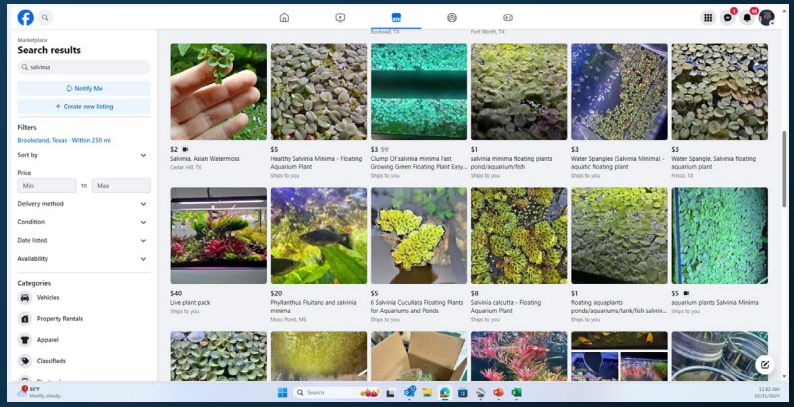
Illegal Online Sales

- Illegal sales of giant/common salvinia, water hyacinth, water lettuce a pervasive problem
- Periodic searches – Facebook marketplace, eBay
- Listings referred to LE for investigation
- No real enforcement capability – issue warnings
- National issue – no platform accountability or illegal activity reporting option



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Questions?