

Chewacla Invasive Plant Working Group Strategies for Invasive Plant Control

Nancy Loewenstein

Gary Wagoner, Jim Hanson, Patrick Thompson,
Sarah Wolak, Galen Hagerty and Les Goertzen



Chewacla
Invasive Plant
Working Group

Chewacla Invasive Plant Working Group (ChIPWG)

Who: Group of volunteers

Goal: Improve and protect Chewacla's
ecological health

Plan: Control invasive plants, restore
native plants

Chewacla State Park



Chewacla State Park

Auburn, AL

LEGEND



TRAILS

- 1 - Lakeside Connector ◆
- 2 - CCC ◆
- 3 - Falls View ◆
- 4 - Creekview ◆
- 5 - RePete ◆
- 6 - Jawbonez ◆
- 7 - Wolf Trap ◆
- 8 - Project X ◆
- 9 - Mamas Milkshake ◆
- 10 - Rock Garden ◆
- 11 - Camp Trail ◆
- 12 - Base Camp ◆
- 13 - CCC Alt ◆
- 14 - Boy Scout ◆
- 15 - Kick 6 ◆
- 16 - Kick 6 Short ◆
- 17 - Rock Bottom 1&2 ◆
- 18 - Rock Bottom 3 ◆
- 19 - Fox Trail ◆
- 20 - Rock Bottom 4 ◆
- 21 - Tall Bridge ◆
- 22 - Tiger Woods ◆
- 23 - High Gravity ◆
- 24 - Pipe Dream ◆
- 25 - Deer Rub ◆◆
- 26 - NORBA ◆
- 27 - Low Gravity ◆◆
- 28 - Forbidden Zone ◆◆
- 29 - Tiger Woods Extension ◆◆
- 30 - Norba Access Road ◆
- 31 - Jurassic Park ◆
- 32 - Dual Slalom ◆◆
- 33 - Savage Hill ◆
- 34 - Falls Trail - Hikers Only
- 35 - Troop 30 - Hikers Only
- 36 - Eagle Scout - Hikers Only
- 37 - Mt Laurel - Hikers Only



CAMP
CENTRAL ALABAMA MOUNTAIN PEDALERS

Trails are built and maintained by CAMP volunteers.
For more information and to get involved visit:
www.camp-sorba.org



**AUBURN
OPELIKA**
t o u r i s m

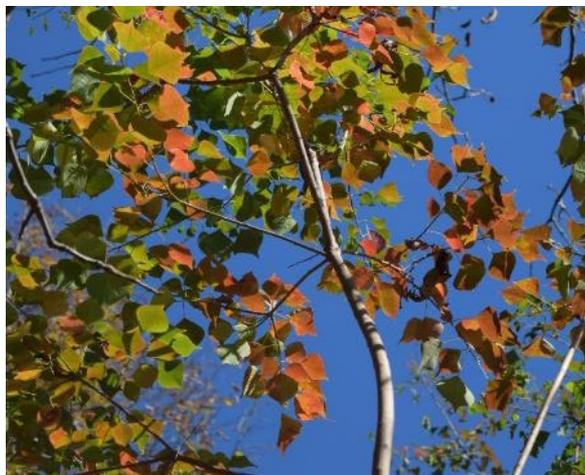
In Case of Emergency Park Office (334) 887-5621 – EMS 911

696 acres



Vascular Flora of CSP (Taylor et al., 2019)

- 704 species
- 139 (19.7%) of which were non-native





Top Species of Concern

- thorny olive
- Chinese tallowtree
- wild taro
- glossy privet

- Japanese climbing fern
- Scattered Chinese privet, kudzu, mahonia, mimosa, stiltgrass, etc.

Brief history of ChIPWG

2021

- **Aug** - Initial meeting to gauge interest and determine primary areas of concern
- **Oct** - Met with Park Supervisor and State Parks Natural Resources Supervisor (Tasha Simon)
- **Nov** - Draft MOU with AL State Parks and incorporated in AL as a non-profit org
- **Dec** - Held our first workday, and submitted a grant proposal to Lee County MG*

* were awarded \$1025

2022

- 12 small workdays
 - 128 volunteer work hours
- MOU with AL State Parks
- 501 (c) (3) status
- logo (designed by Robert Finkel)
- web page development
- Alabama State Parks awarded \$25,000 'Hearts of STIHL' grant, primarily for CHIPWG work at Chewacla



2023

13 Volunteer Workdays

- 4 large public workdays
- 9 regular workdays
- 607 volunteer hours

ASP Eagle Award

- for outstanding contributions in support of Alabama State Parks



2024

- 15 Volunteer Workdays
 - 4 large community workdays
 - 11 'strike force' workdays
 - 562 volunteer hours
- Awarded ALIPC grant (\$1500)



2025

- 3 Volunteer workdays
 - 2 large community workdays
 - 3 small workdays
 - 336 volunteer hours





Top Species of Concern

- thorny olive
- Chinese tallowtree
- wild taro
- glossy privet

Chewacla State Park

Auburn, AL

696 acres

LEGEND

- | | | | |
|---|-------------|---|-------------|
|  | Park Office |  | Parking |
|  | Campground |  | Swimming |
|  | Cabins |  | Overlook |
|  | Pavilion |  | Playground |
|  | Restroom |  | GPS Markers |



Highest concentration of thorny olive and glossy privet
Moderate concentration of thorny olive and glossy privet
Highest concentration of tallowtree and wild taro

Considerations for control options

- Application methods must minimize environmental impact and risk of injury to volunteers
 - No use of power tools by volunteers
 - No herbicides with >Caution on label
 - Train volunteers (plant ID, best practices, safety) and have them work with experienced individuals
 - No work on shrubby species during nesting season
- Weigh benefits of working in areas of high visibility ... build volunteer interest without disrupting visitor experience at the park

Volunteers

- Core group that can attend **regular workdays**
 - 2-10 people
 - 2-3 hours long
- Hold periodic **large public workdays** to engage new volunteers
 - 20-75 people
 - many are Auburn students (volunteer requirements for student organizations, extra credit, class projects)
 - 2-3 hours long

thorny olive (*Elaeagnus pungens*)



Target species for large workdays
with untrained volunteers





Control methods - thorny olive

• **Cut stump treatments**

- Tried 25% glyphosate but a lot of sprouting
 - Some of the area we'll see this afternoon
- Switched to 20% triclopyr ester in basal oil
- Sizes we can handle with loppers or pruning saws

• **Basal bark**

- 20% triclopyr ester in basal oil







Unless interfering with a trail,
cut material is left in place

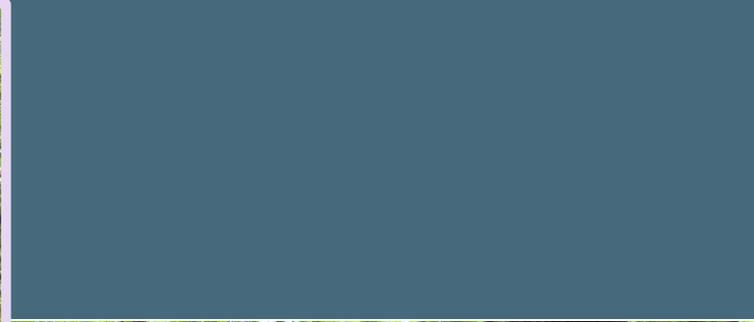


There were some monsters out there –
basal bark treatment on them



post treatment





NJL



Foliar spray of sprouts during late fall and winter

Foliar herbicide for thorny olive sprouts

- Late fall and winter to limit collateral damage
- Winter 2022 - tried 2.25% Vastlan + 2% MSO
 - did not provide stellar results
- Winter 2024 - 4% triclopyr ester + 2% MSO
 - 7.5 oz triclopyr ester in 7.5 oz basal oil + 4 oz MSO added to 1.5 gallons water (stirred well) then added 1.5 gal more of water
 - too early to tell if will have long term control, but looks promising



glossy privet (*Ligustrum lucidum*)



NJI



NJI

glossy privet (*Ligustrum lucidum*)



NJL



NJL





Glossy privet cut
stump treatment -
20% triclopyr ester
in basal oil



Chinese tallowtree, popcorn tree (*Triadica sebifera*)



wild taro understory

Chewacla State Park

Auburn, AL

LEGEND

- | | | | |
|--|-------------|---|-------------|
|  | Park Office |  | Parking |
|  | Campground |  | Swimming |
|  | Cabins |  | Overlook |
|  | Pavilion |  | Playground |
|  | Restroom |  | GPS Markers |



Highest concentration of Chinese tallowtree and wild taro

Chinese tallowtree, popcorn tree (*Triadica sebifera*)





NJL

Basal bark trt

- On smaller trees
- 20% triclopyr ester



Hack and squirt

50% imazamox in
water



abundant tallowtree seedlings are easy to pull



some dense growth on sandbar islands

cut with brush saws





- This approach did not lend itself to cut stump treatment.
- Plan was to follow up with a foliar spray (2% imazamox) once resprouts reached ~3 feet

- Unfortunately, regrowth was nearly impenetrable, so we weren't comfortable with foliar spray application.

- Will likely do cut stump with imazamox trt this summer

wild taro (*Colocasia esculenta*)



some large, dense stands

wild taro (*Colocasia esculenta*)



more scattered in other areas

wild taro - control is challenging

- Waxy leaf
- Virtually any part of the plant can start a new plant
 - Leaves
 - Stolons
 - Corms (root-like stem)



Arrow leaf (native look a-like)

Wild taro



Wild taro control

Per Stephen Enloe and Gena Todia

- 2% imazamox v/v + 1% MSO v/v
 - mixed in water with blue indicator dye
 - thoroughly wet all leaves and stems
- When leaves are growing, and temps are >50 F
- Won't see response for many weeks – be patient!

- **2023**

- 2% imazamox + 1% MSO foliar spot trt
 - trials during summer into fall
- A few trials with aquatic glyphosate (2%)
- Did not see very good results (with either)
 - One issue - didn't stick to leaves very well and we weren't treating the stems

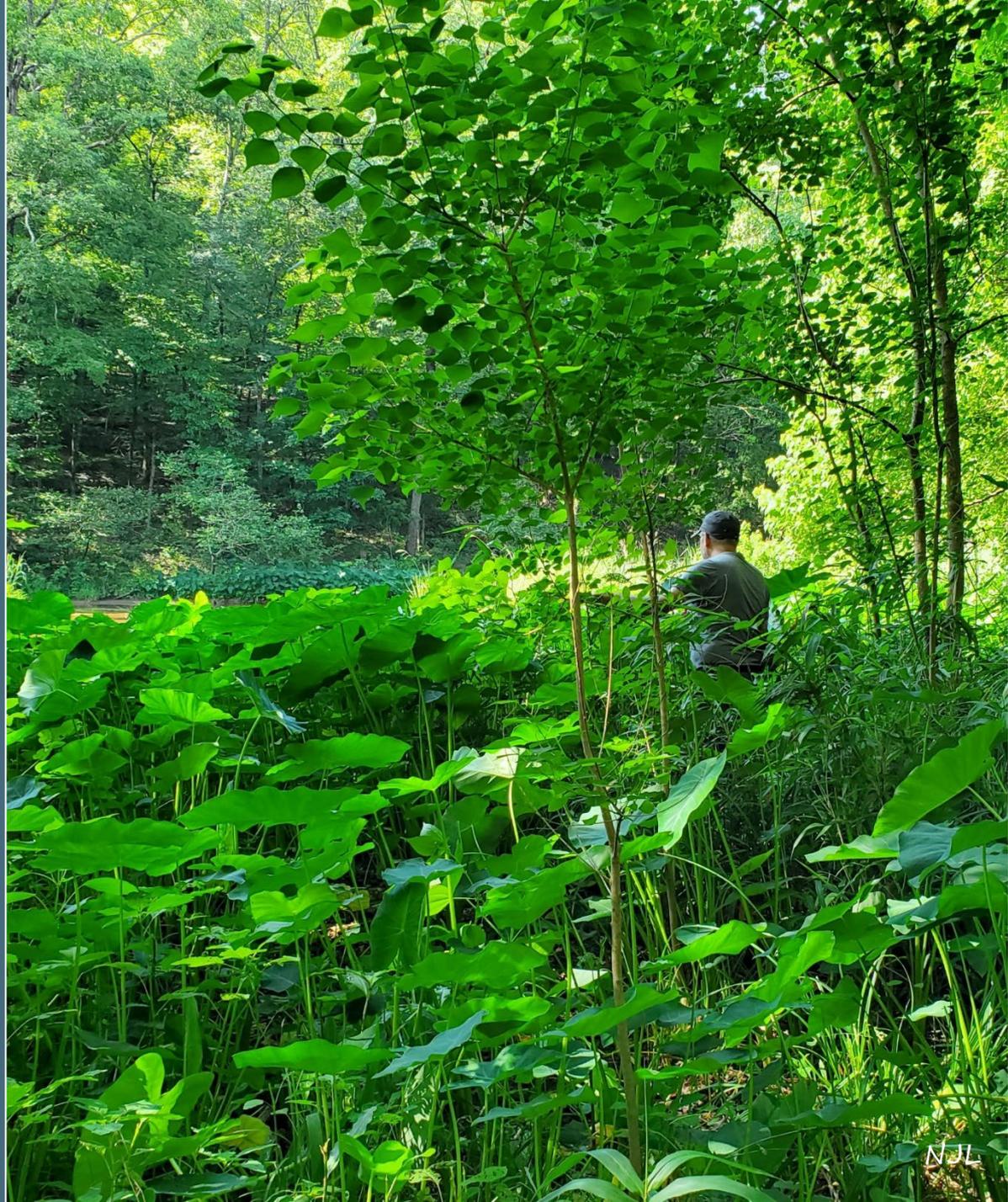
- **2024**

- 4-5% imazamox* + 2% MSO
- Appears to be working pretty well
 - will still need spot follow-up treatments

* using Alligare IMOX









NJL



Note: we're not treating the stems

NJL



Treated:

July 27, 2024

Photo:

Aug 21, 2024





Aug 21, 2024

- Saw some regrowth in areas treated in June.
- Treated new growth and any plants we'd missed

Summary

Over past 3 years ...

- 43 workdays
- 1,633 vol. hours
- Treated >60 acres of thorny olive and most of tallowtree and wild taro along Moore's Mill Creek



Acknowledgements

- Chewacla and Alabama State Parks
- Our many volunteers
- Funding: Lee County Master Gardeners, STIHL, and ALIPC

