



IF YOU CANT BEAT 'EM, EAT 'EM

St. Johns River Tilapia Haul Seine Evaluation

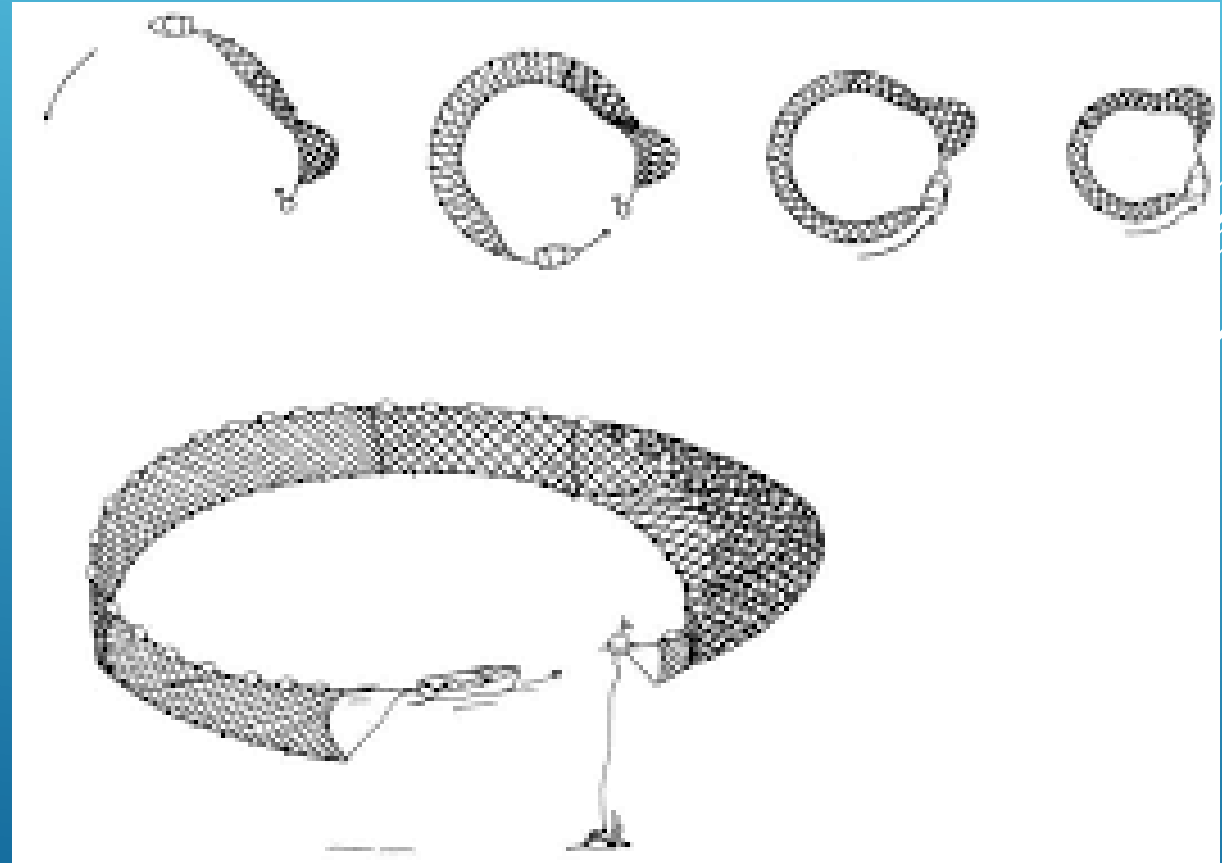


BRIEF HISTORY

- ▶ Tilapia introduced in 1960's
- ▶ Widely established
- ▶ Various Fishing methods



- ▶ Commercial Haul Seine





► 2022

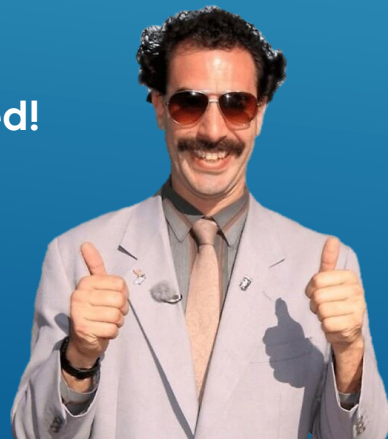
- SJRWMD initiated tilapia harvest
- Lake Winder
- Commercial Fishery
- FWC came and counted fish

► Catch

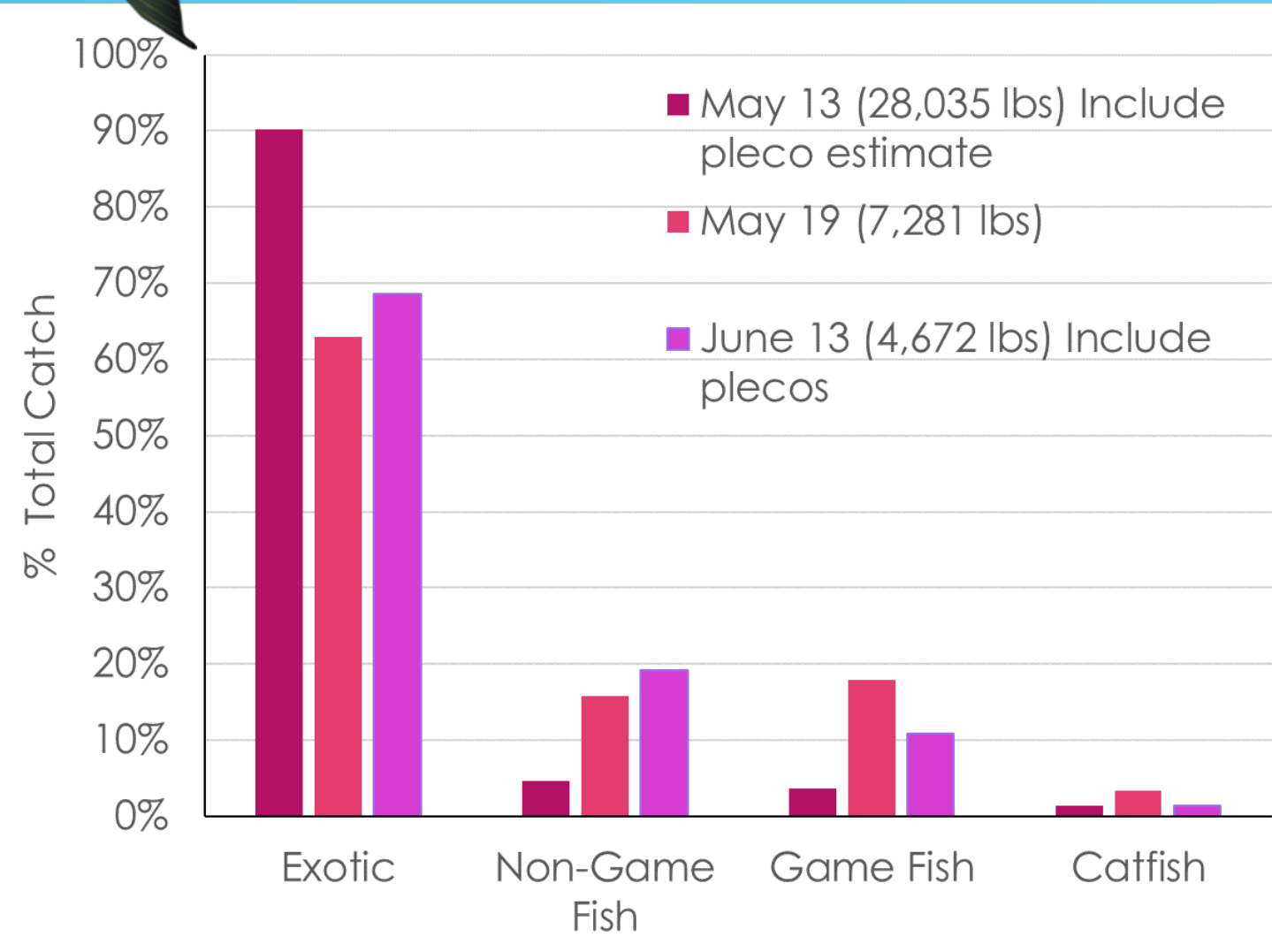
- 23,000 LBS of Tilapia Removed in 3 trips
- 60-90% of fish caught were exotic
- Minimal impact to native/game fish

► Great Success!

- 306.13 lbs P removed!
- See ya Next Year



LAKE WINDER CATCH SUMMARY

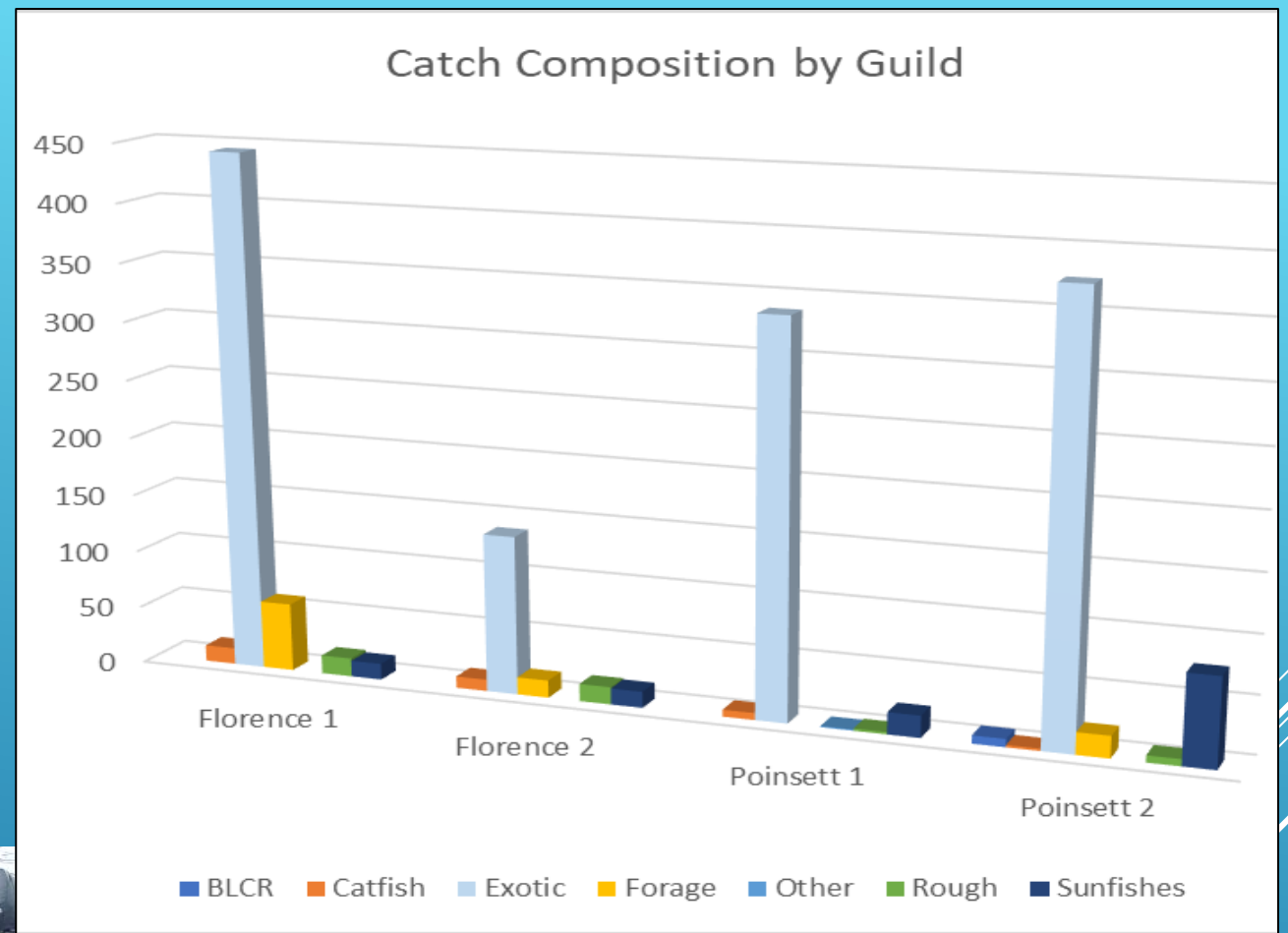
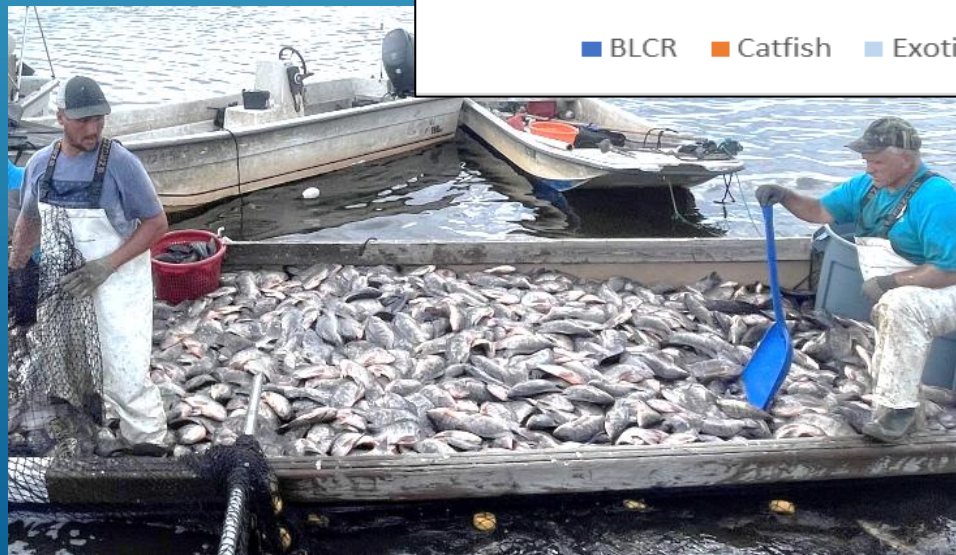


► 2023

- 3 Lakes Permitted
 - Lakes Poinsett, Florence and Cone
 - Counted fish /Tagging Trial
- ### ► Catch
- Dominated by Exotics
 - 39,185 lbs Tilapia Removed
 - 65-85% of catch tilapia/exotic catfish

► Great Success!

- 444.21 lbs P removed!



► Water Lows and Woes



► 2024

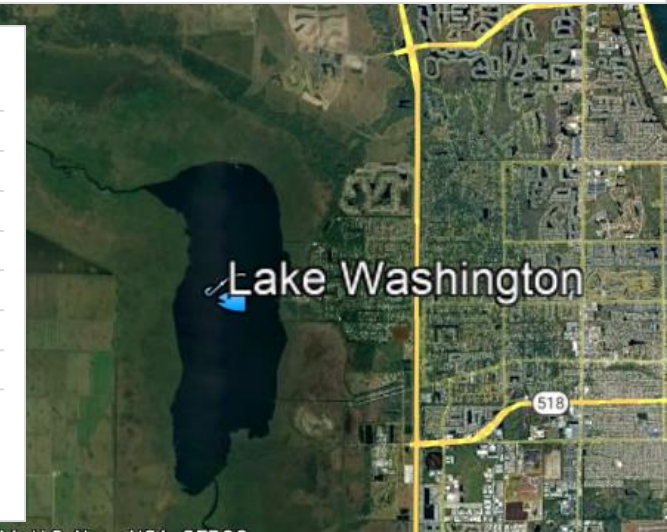
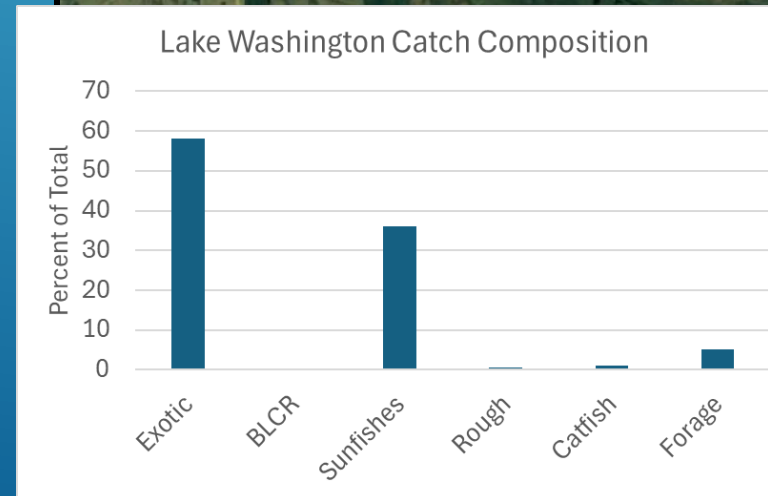
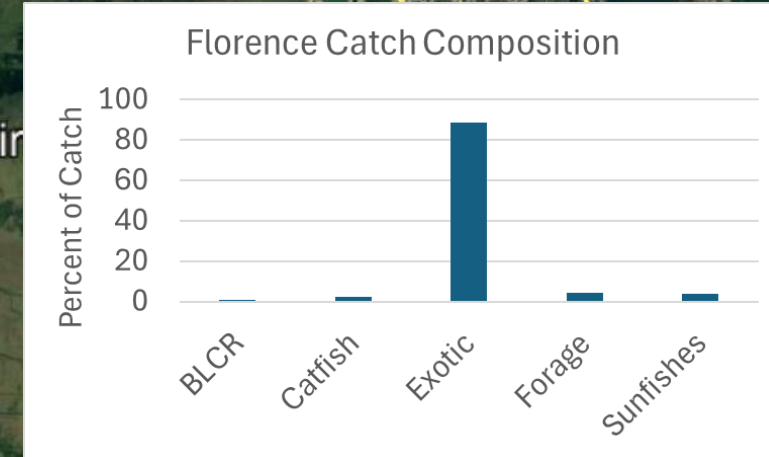
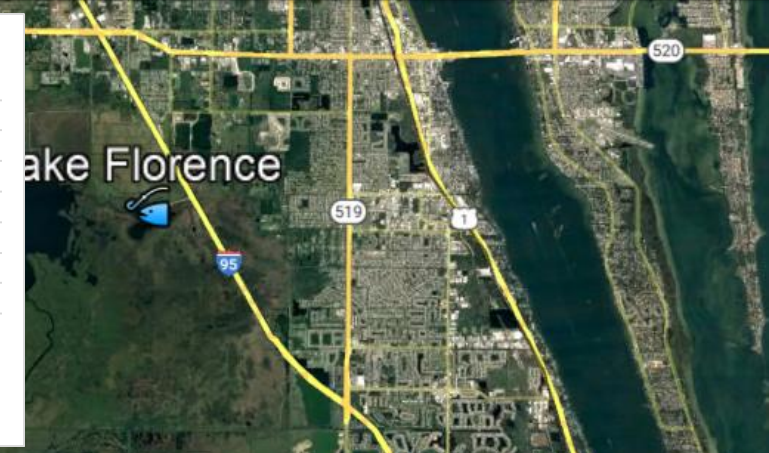
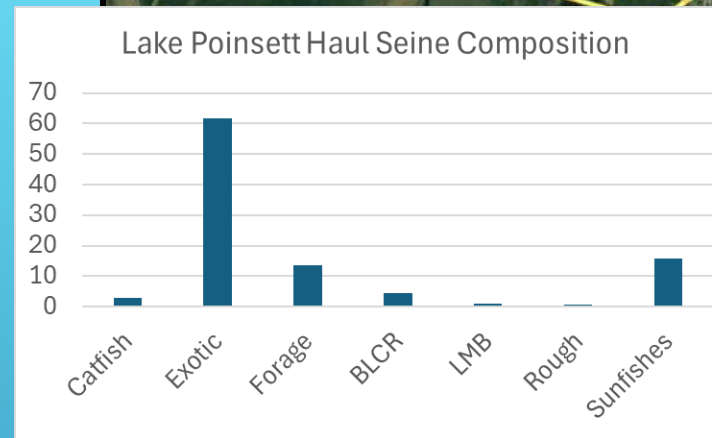
- More lakes Permitted
- Poinsett, Florence and Washington +
- Tagging Study
- 500  in Florence and Washington

► Results –

- 2024 Haul = 60,501 lbs
 - 28,000 LBS caught in Florence-2x
 - 20,005 LBS in Washington -6x
 - 13,900 lbs from Poinsett- 3x
 - 2,817 lbs Lake Sawgrass

► Notes

- Catch Composition 58-85% exotics
- 43 tags returned



LAKE WASHINGTON (3000 ACRES)

► Tagging

- 513 tags deployed
- Challenges
 - Tilapia are hard to catch
 - High water
 - Access to flooded marsh
 - Swim Down!
 - “Sporty” Weather

► Fishing

- 6 fishing attempts Feb-May
- 20,005 lbs of Tilapia Removed
- 19 tags recaptured!
- Preliminary Pop Est



HOW MANY TILAPIA ARE IN LAKE WASHINGTON???

20,005 lbs,

• avg wt 2.34 lbs,

8,549 ind,

513 tagged,

19 recaps =

Lincoln-Peterson Index

$$N = M * C / R$$

223,996

LAKE FLORENCE (105 ACRES)

► Tagging

- Attempted a 150 ft beach seine
 - Out-smarted
 - The intern...
- Easy enough to Electrofish
- 476 tags deployed



► Fishing

- **28,000 lbs Tilapia Removed**
- **22 tags recaptured**
- **Water Level dropped fast**
 - **Too low to fish**
 - **Fish left the lake**



HOW MANY TILAPIA ARE IN LAKE FLORENCE???

28,000 lbs,

• avg wt 2.08 lbs,

13,467 ind,

476 tagged,

22 recaps =

$$N = M * C / R$$

291,373

Ruler

Line Path Polygon Circle 3D path 3D polygon

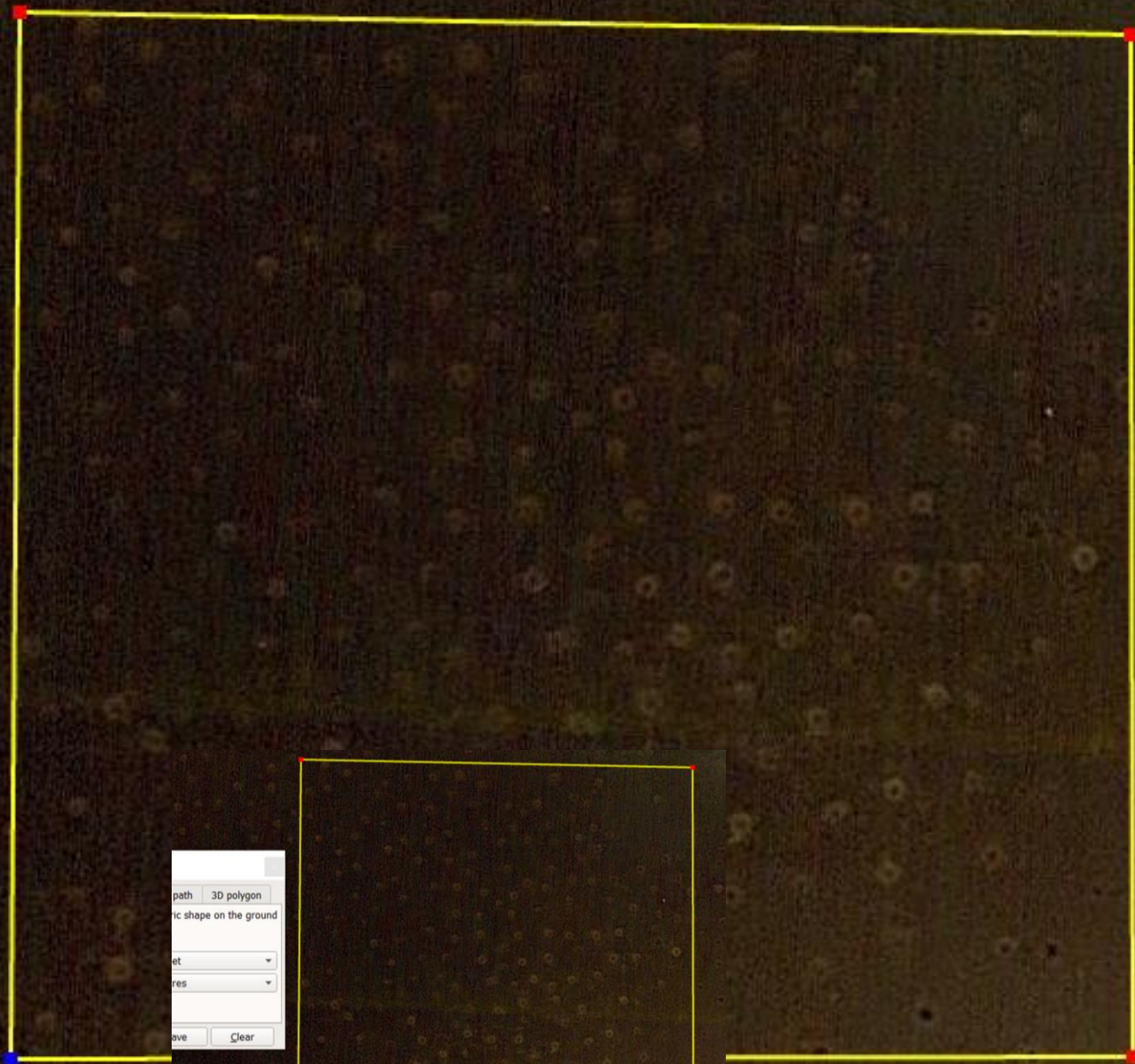
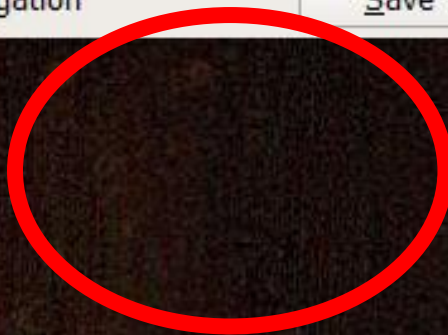
Measure the distance or area of a geometric shape on the ground

Perimeter: 832.97 Feet

Area: 1.00 Acres

☒ Mouse Navigation

Save Clear



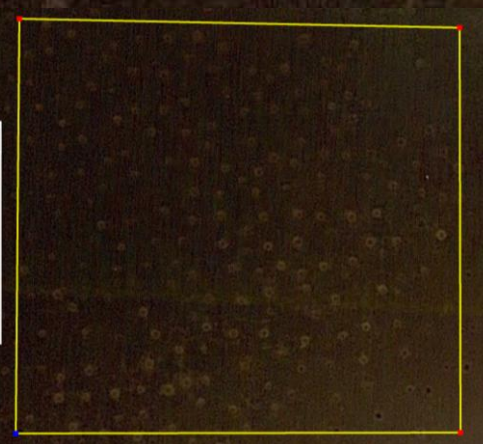
path 3D polygon

Measure the distance or area of a geometric shape on the ground

Perimeter: Feet

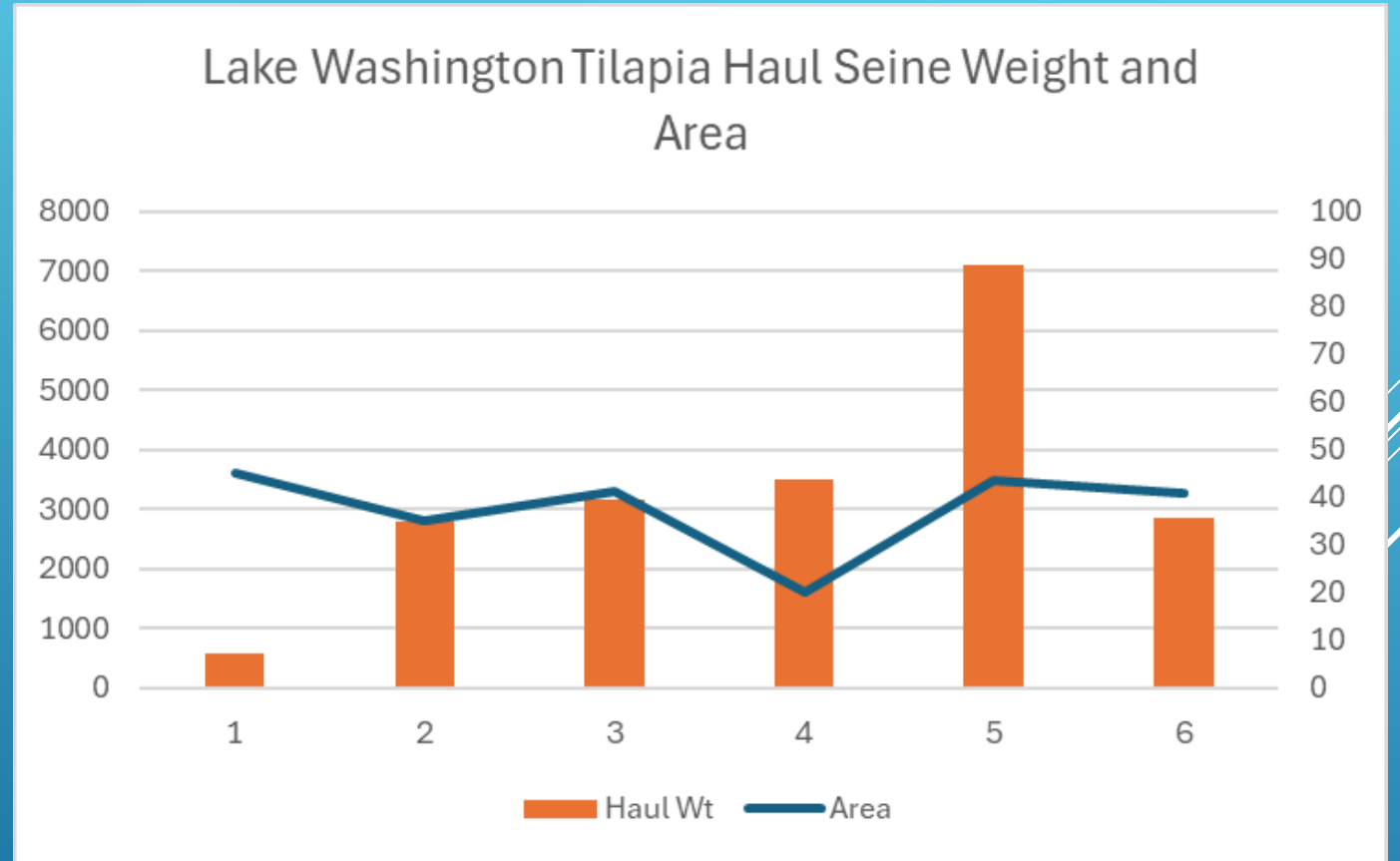
Area: Acres

Save Clear



LAKE WASHINGTON POPULATION ESTIMATE COMPARISSON

- ▶ Lake Washington Swept Area
 - ▶ 133,488 +₋ 28,365
 - ▶ LP estimate 223,996 +₋ 74,850
 - ▶ Modifiers 213,000-225,000
- ▶ Inconsistent Catch



POINSETT?

- ▶ No fish tagged, but 2 recaptures?
- ▶ Fish move and far!
 - ▶ Supported by other studies
- ▶ Swept area estimate ?



63 Fish x **4,429 Lake Acres** = **276,172** (se 33,927) Tilapia in Lake Poinsett

Poinsett	62 fish/acre
Washington	45-76 fish/acre

REFLECTIONS

► Imperfect World

- Pop-es
- Clos
- All to e reported
- Rec High



► Inconsistent fishing

- Stumps
- Alligators

► The Future

- Continue Fishery/nutrient removal
- Limitations of the fishery



Thanks to everyone that helped catch and tag fish

Partners

