

Use of Grass Carp in Aquatic Plant Management in the Tully Kettle Lakes Area

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What are Grass Carp?

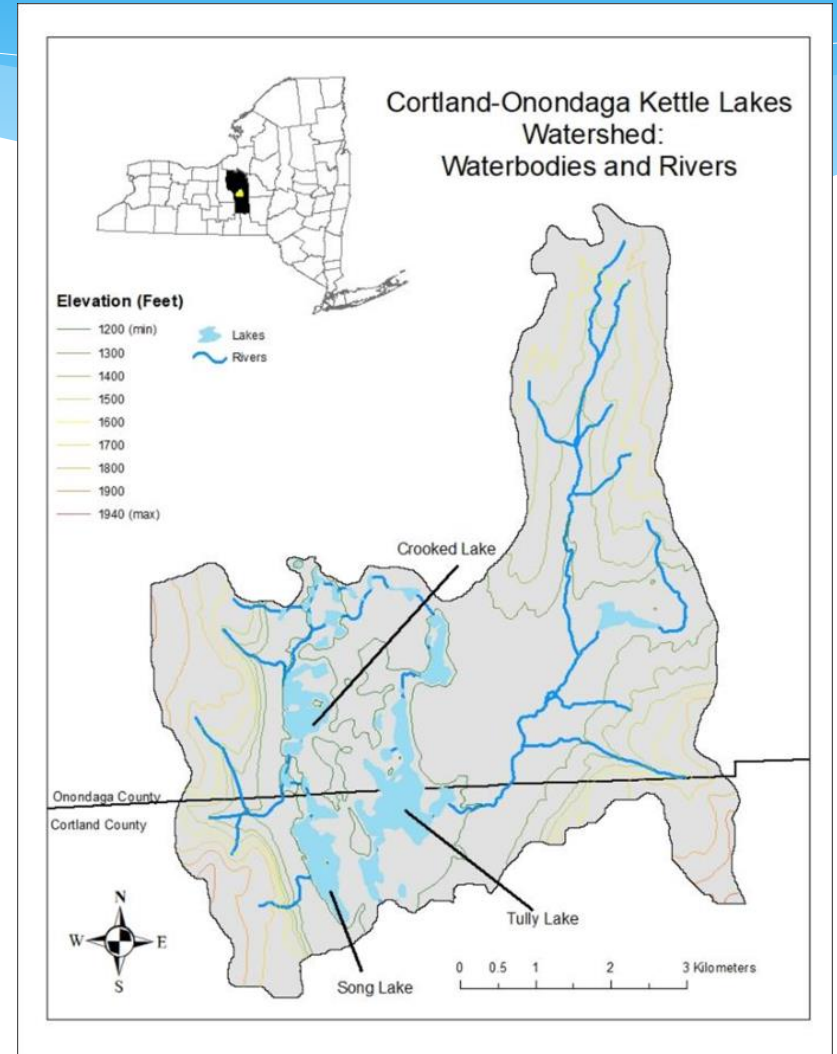
Picture of a Grass Carp



- * Herbivorous fish species
 - * Eat aquatic plant species
 - * Stocked for plant control
- * Large size and old age
 - * Up to 48" and 30 years old
- * Recommended stocking rate is 5 fish per vegetated hectare
 - * 1 hectare is around 2.5 acres
- * Triploid
 - * Cannot reproduce

Where are the Tully Kettle Lakes?

- * Around 20 miles south of Syracuse, NY
 - * Border of Onondaga and Cortland Counties
- * Series of glacially formed lakes
- * West branch of Tioughnioga River



Where were Grass Carp stocked?

- * Historically stocked in Song Lake
 - * Last Stocked in 2005
- * Currently being stocked in Crooked Lake
 - * Last stocked in 2017

Song Lake



What was the study?

- * Current populations of Grass Carp in Song and Crooked lakes
- * How long they will persist in each lake
- * Potential management strategies going forward

Song Lake



The study continued

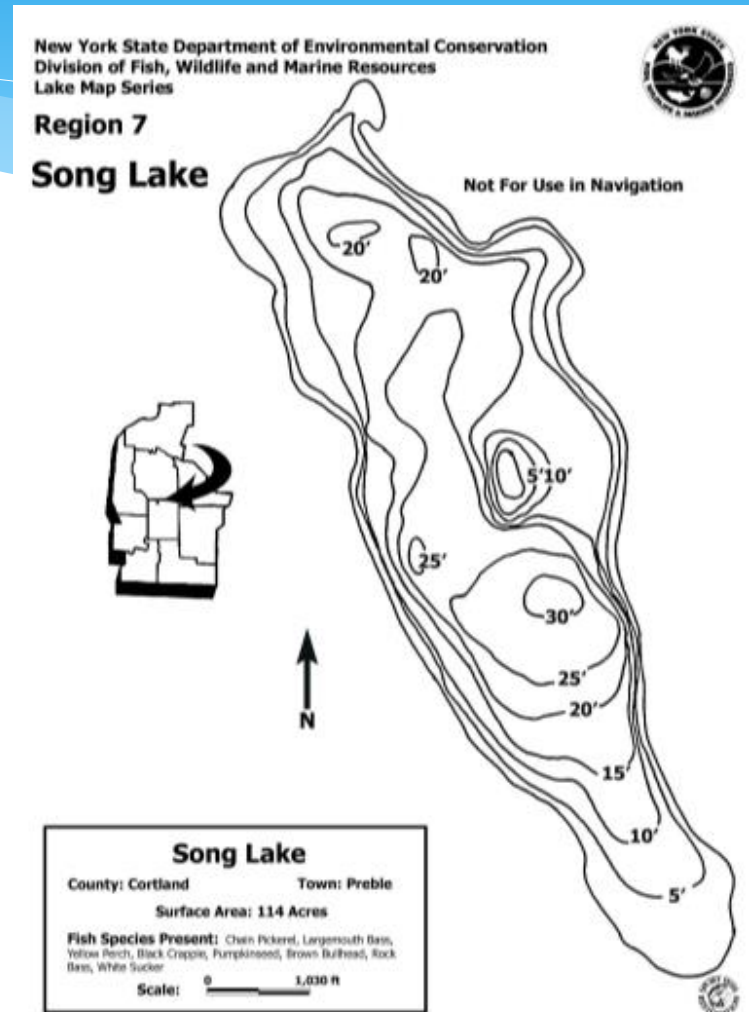
Song Lake



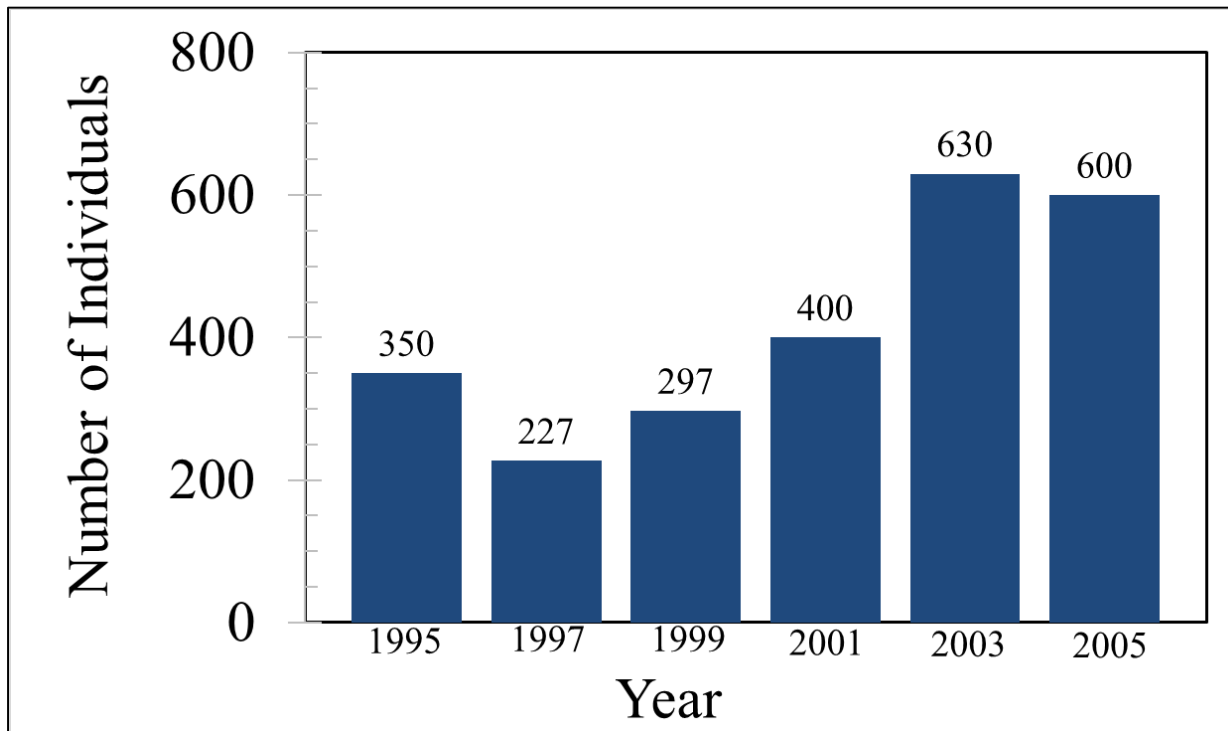
- * Exponential growth model was used
- * Maximum age of 31
- * 90% CI calculated around the average

Song Lake

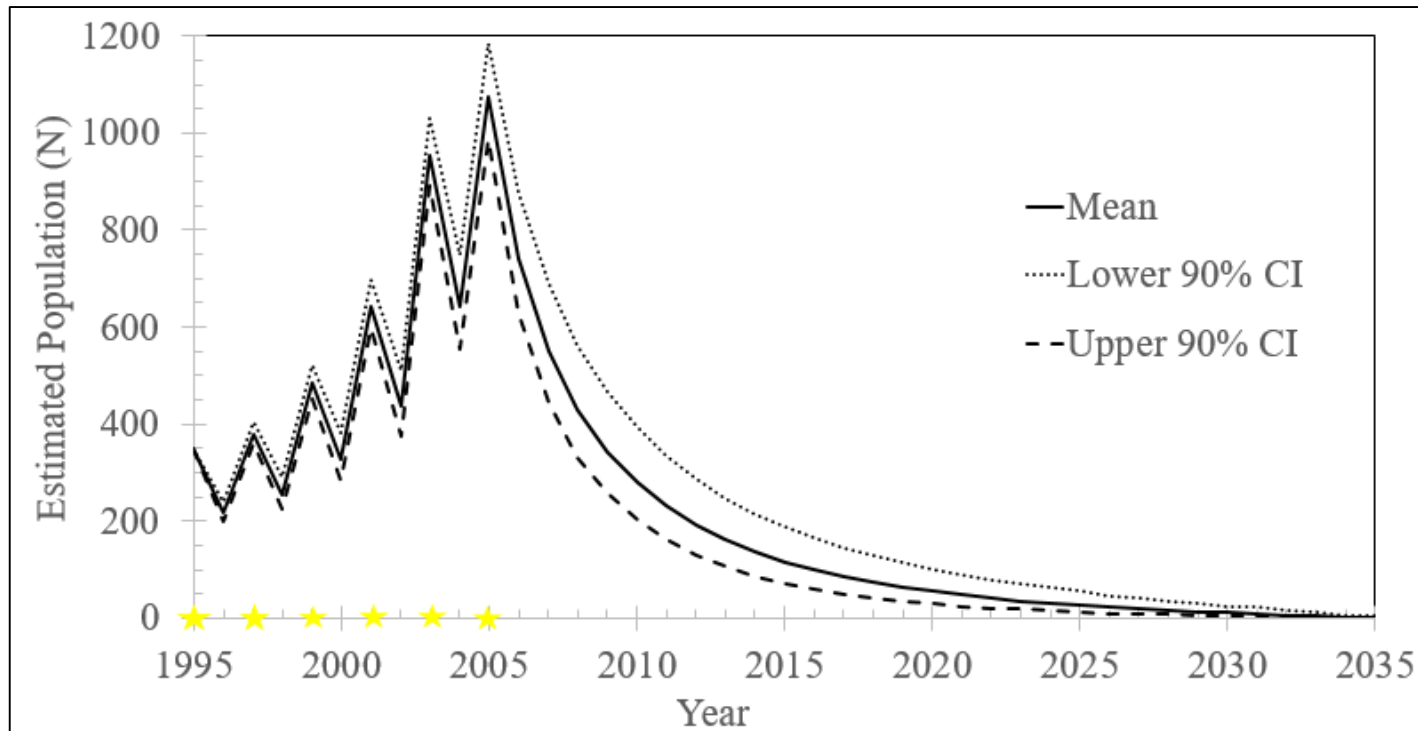
- * Around 115 acres
- * Maximum depth of roughly 30 feet
- * Loss of oxygen at lower depths during the summer
- * Stocked over 2,500 Grass Carp 1995-2005



Stocking rates for Song Lake



Song Lake Grass Carp Population



What does this mean?

- * Currently between 40-130 Grass Carp in Song Lake
- * Can persist in the lake into the mid 2030s
- * NYS Threatened plant species in the lake
 - * Lake Cress

Song Lake



Crooked Lake

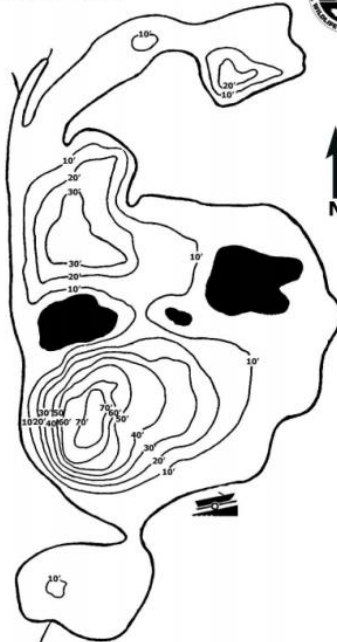
New York State Department of Environmental Conservation
Division of Fish, Wildlife and Marine Resources
Lake Map Series



Region 7

Crooked Lake

Not For Use in Navigation



Crooked Lake

County: Onondaga

Town: Tully

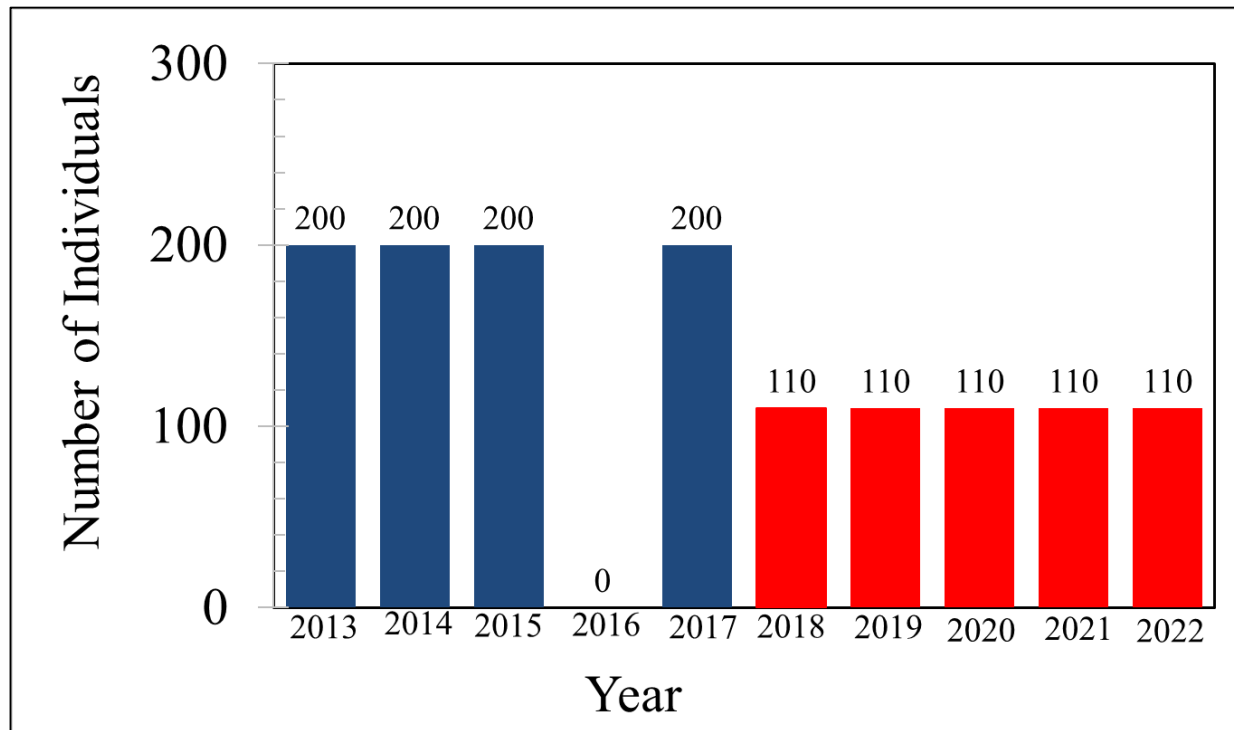
Surface Area: 108 Acres

Fish Species Present: Largemouth Bass, Chain Pickerel, White Sucker, Yellow Perch, Brown Bullhead, Redbreast Sunfish, Bluegill, Pumpkinseed

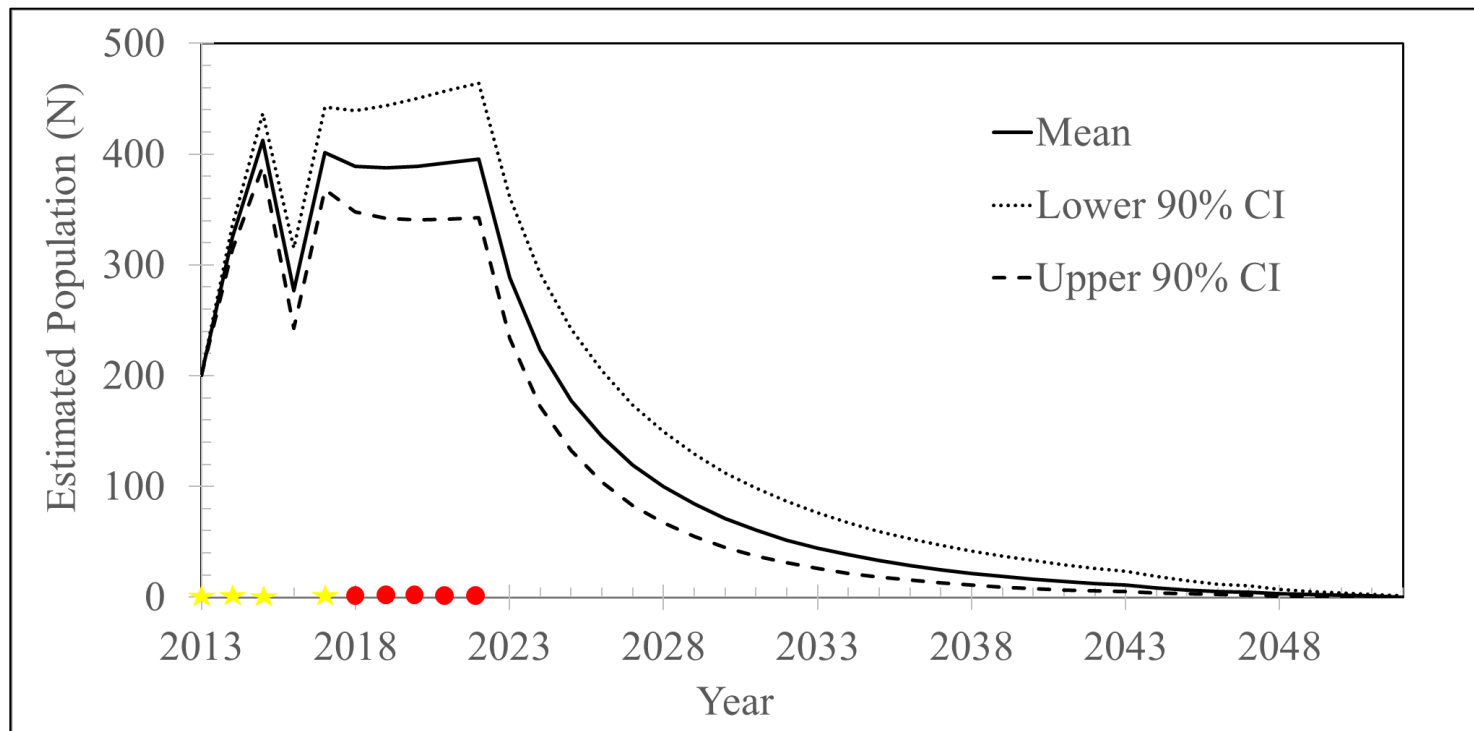
Scale: 0 900 ft

- * Roughly 105 acres in size
- * Maximum depth of 70 feet
- * Loss of oxygen at lower depths during the summer months
- * 800 Grass Carp stocked 2013-2017

Crooked Lake Stocking



Crooked Lake Grass Carp Population



What does this mean

- * Currently between 350-400 fish
- * Stocking continues for the next 5 years
 - * Maintain the current population size
- * Fish can be in the lake through the 2050s

Crooked Lake



Conclusion

Song Lake



- * Song Lake can have fish until 2030s
 - * Lake Cress present in the lake
- * Crooked Lake can have fish through the 2050s
 - * Stocking 110 fish a year to maintain population
- * Stocking must be done meticulously to accomplish desired goal

Acknowledgements

- * A special thank you to the Cortland-Onondaga Federation of Kettle Lake Associations for information regarding stocking and for assistance



Questions?

