

# Spawning Comparison of *Luxilus chrysocephalus* and *Campostoma oligolepis*

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## Introduction

Striped Shiners(*Luxilus chrysocephalus*) and Stonerollers(*Campostoma oligolepis*) are two important members of the Cyprinidae family. The experiment centered around comparing GSI(Gonadosomatic Index) values to determine and compare peak spawning times. GSI is calculated by dividing the gonadal mass by the gross mass minus the gonadal mass, and then multiplying by 100 to achieve a percentage. The goal was to collect at least 20-30 dissectible samples for each of the months studied. We were able to get more some months than others.

Top: Striped Shiner, Bottom: Stoneroller

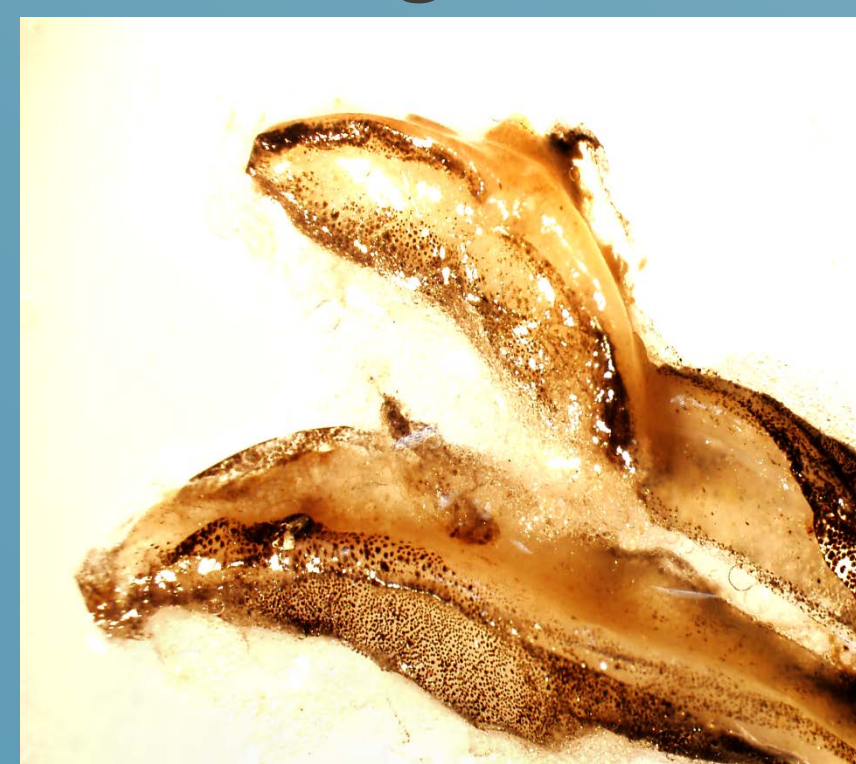
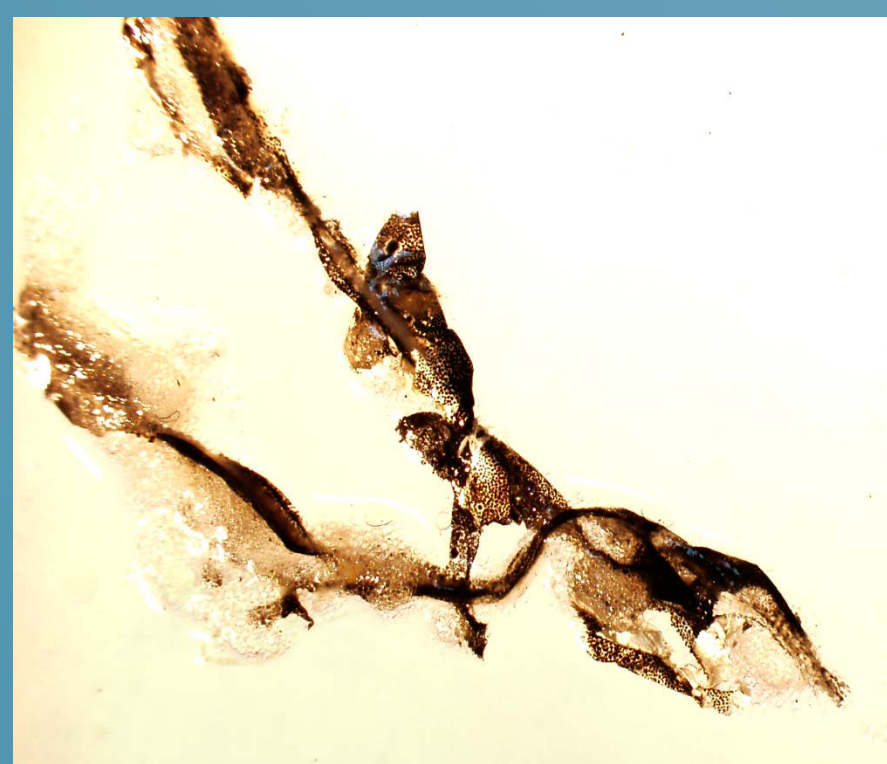


Sample logs. Striped left and Stonerollers right.

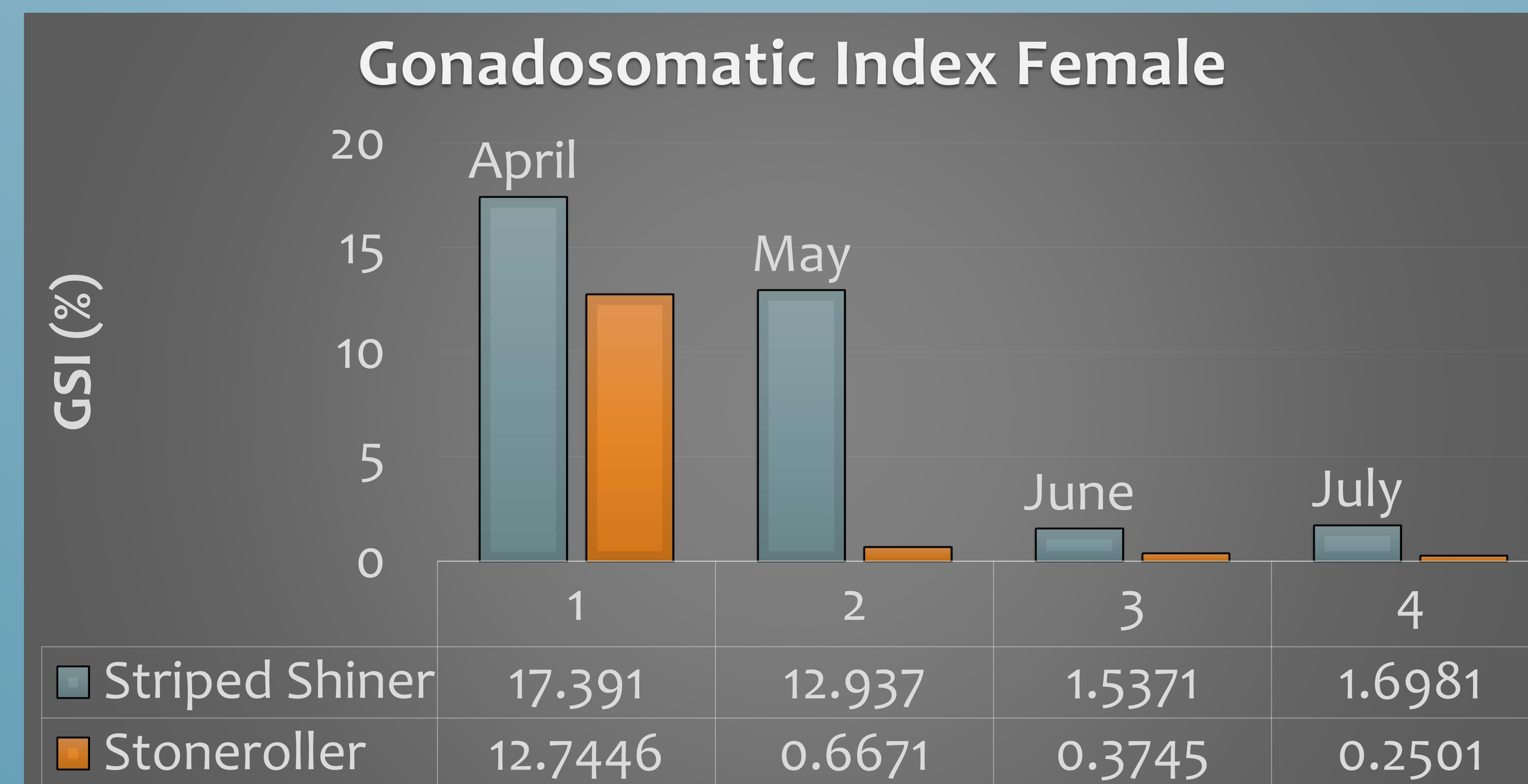
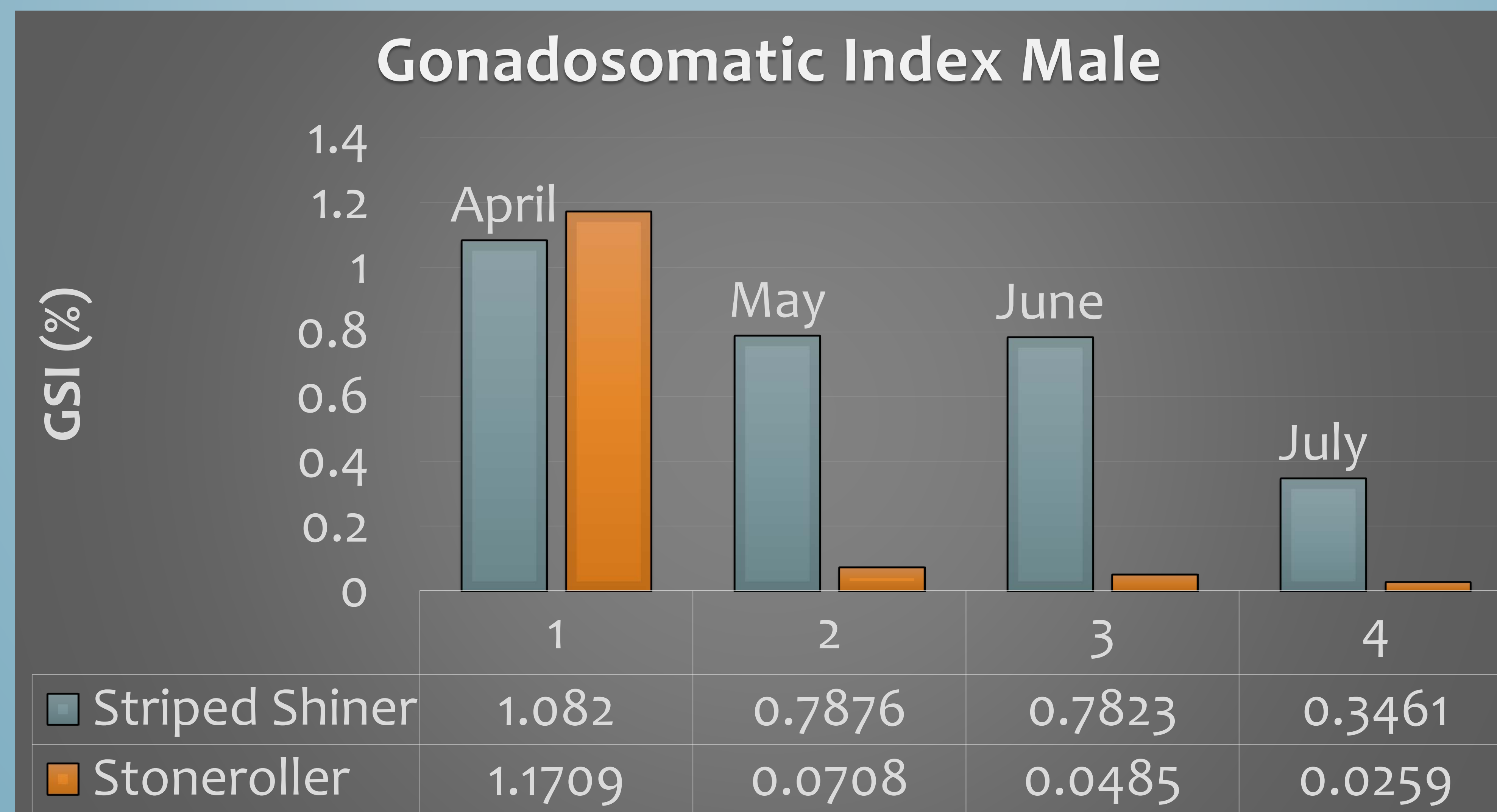
Month	M	F
April	39	14
May	21	21
June	9	12
July	7	8

Month	M	F
April	19	17
May	5	10
June	11	10
July	12	7

Striped Shiner Gonads from July  
Male left and Female Right



## GSI(%) comparison for April 2014-July 2014



## Conclusion

In both male and female samples from the months studied both species seem to peak around April with the Striped Shiner(*Luxilus chrysocephalus*) gradually decreasing in GSI(%), while the Stoneroller(*Campostoma oligolepis*) seems to drop off dramatically. This would suggest that the peak spawning time for both species is around April.

It is possible that the Stonerollers start before the Striped Shiners, as they seem to be done as soon as April ends, while the Striped continue in a downward trend. It would be beneficial to conduct additional research to further study the gonads, by dissecting out the eggs and getting counts and measurements. It would also be helpful to do collections during the other months of the year to see what exactly is going on during an entire yearly cycle.

## Acknowledgements

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