

Lead Net Sampling Pilot Project

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Current Standard Sampling

- Trap net sampling is current protocol
- Thirty net nights per month for three months (September through January)
- Typically Monday-Thursday
- Little to no crappie are collected in some lakes, despite healthy fish populations



Meetings Make Good Things Happen!

- ARK-LA Meeting Presentation
- Louisiana Department of Wildlife and Fisheries
- Used lead nets to catch grass carp
- Began sampling crappie and bream
- Inspired AGFC biologists to investigate further

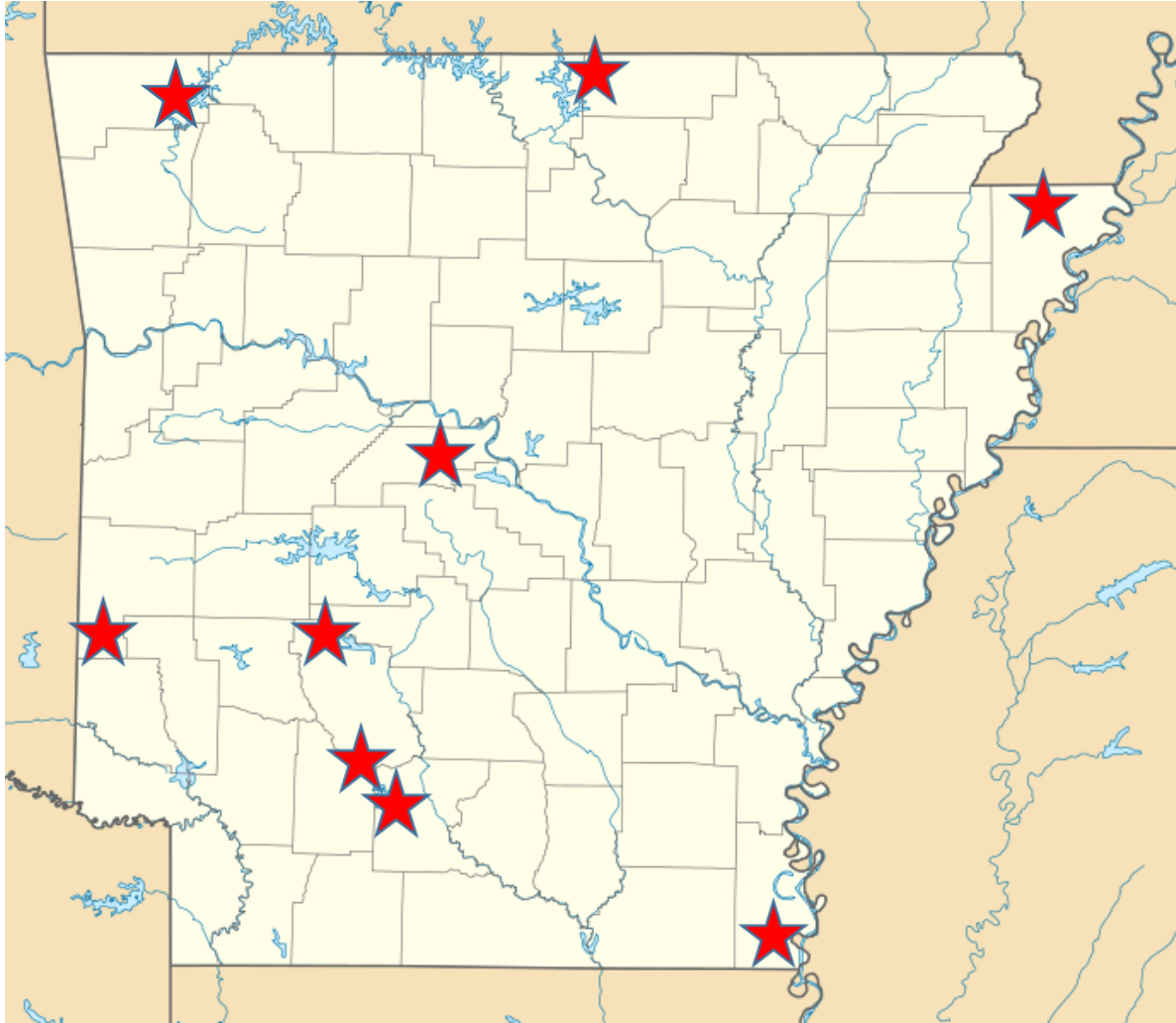


Lead Net Pilot Study

- 42 lead nets total
- 7 districts*
- 6 nets per district
- 8 lakes*
- September-January
- 48 hour soak time
- Monday, Wednesday, Friday

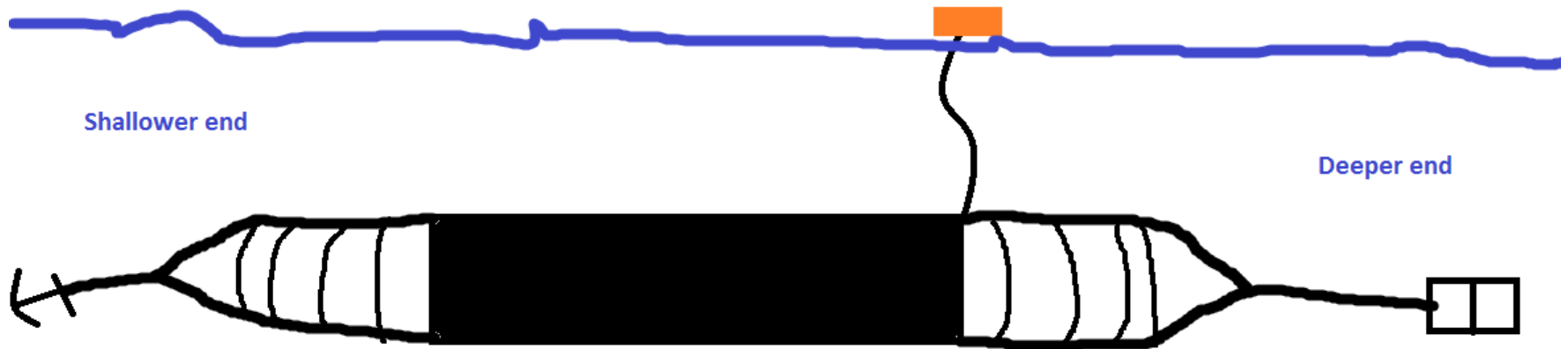


Lead Net Pilot Study

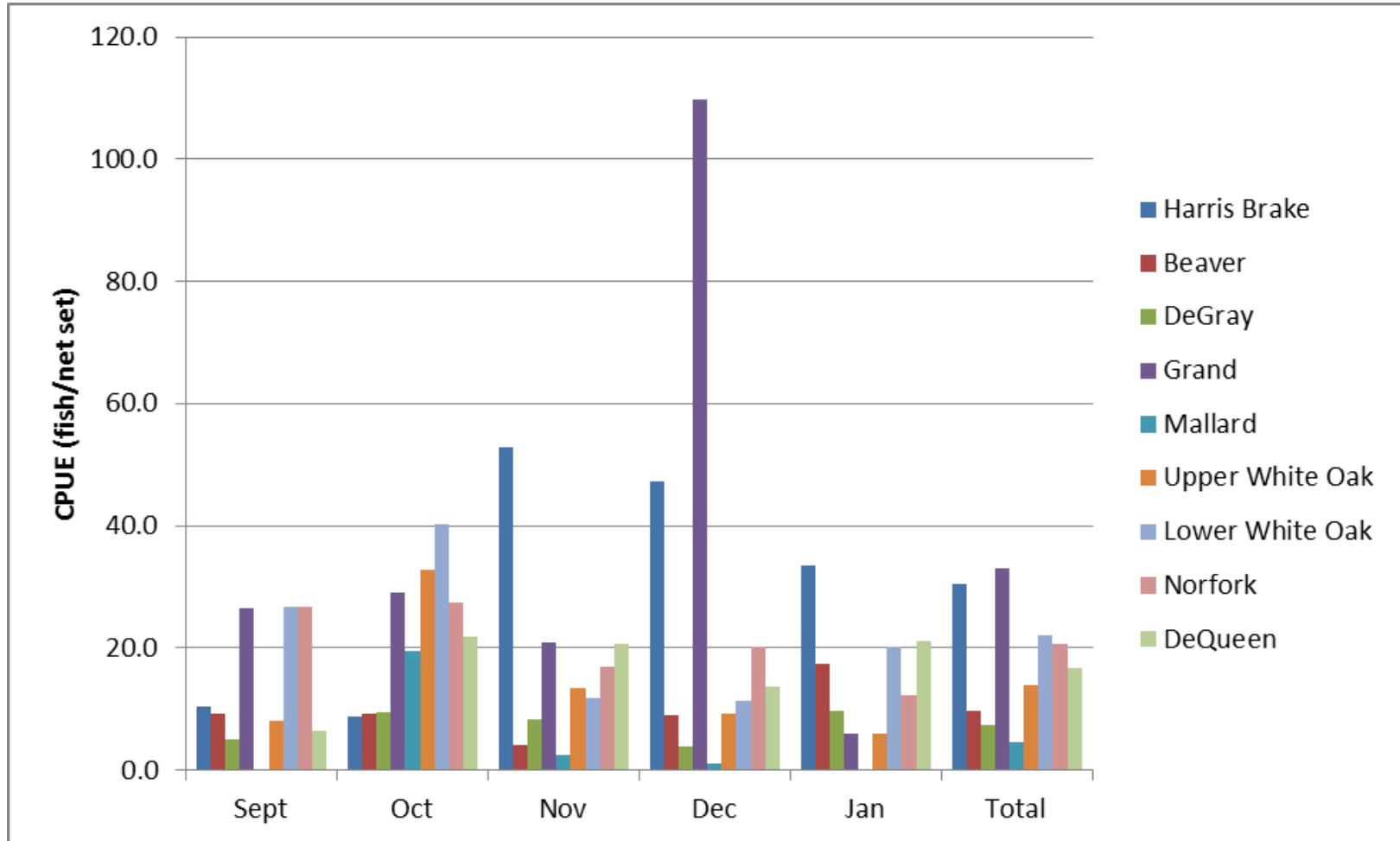


Lead Net Pilot Study

- Depth: 1-10 m
- Temperature: 7-31C
- Secchi: 0.3-3+ m



CPUE of Black and White Crappie Combined

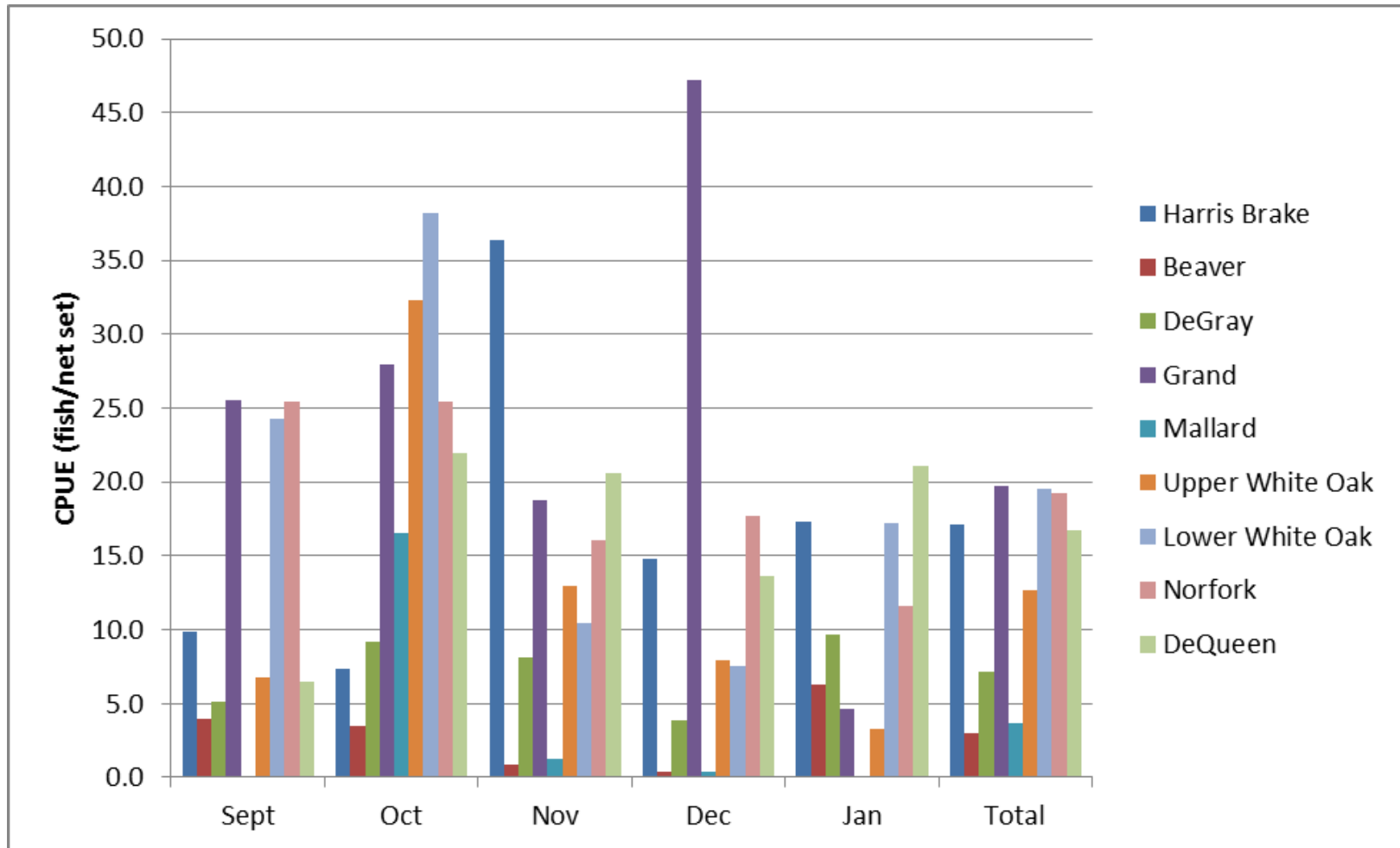


CPUE of Black and White Crappie Combined

	Sept	Oct	Nov	Dec	Jan	Overall
Harris Brake	10.5	8.8	52.8	47.3	33.5	30.6
Beaver	9.3	9.3	4.1	9.0	17.3	9.8
DeGray	5.2	9.5	8.3	3.8	9.7	7.3
Grand	26.4	29.1	20.8	109.8	5.9	33.1
Mallard		19.6	2.6	1.2		4.7
Upper White Oak	8.2	32.8	13.3	9.3	6.0	13.9
Lower White Oak	26.8	40.3	11.8	11.3	20.3	22.1
Norfolk	26.8	27.3	16.9	20.2	12.3	20.7
DeQueen	6.5	21.9	20.7	13.7	21.3	16.8



Black Crappie CPUE

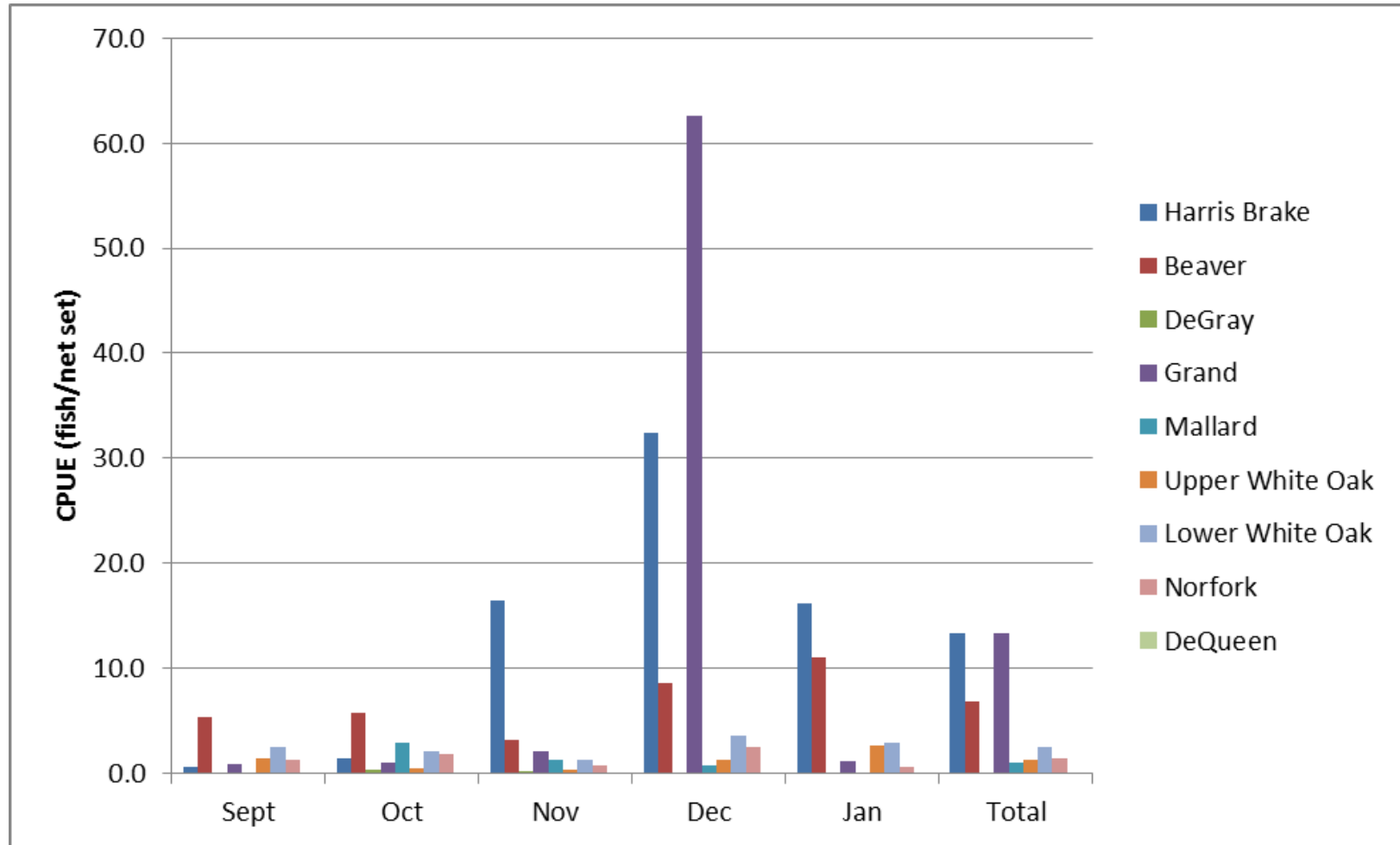


Black Crappie CPUE

	Sept	Oct	Nov	Dec	Jan	Overall
Harris Brake	9.8	7.3	36.4	14.8	17.3	17.2
Beaver	4.0	3.5	0.9	0.4	6.3	3.0
DeGray	5.2	9.2	8.1	3.8	9.7	7.2
Grand	25.5	28.0	18.8	47.3	4.7	19.7
Mallard		16.6	1.3	0.4		3.7
Upper White Oak	6.8	32.3	12.9	7.9	3.3	12.7
Lower White Oak	24.3	38.3	10.4	7.6	17.3	19.6
Norfolk	25.4	25.4	16.1	17.7	11.6	19.2
DeQueen	6.5	21.9	20.6	13.7	21.1	16.8



White Crappie CPUE

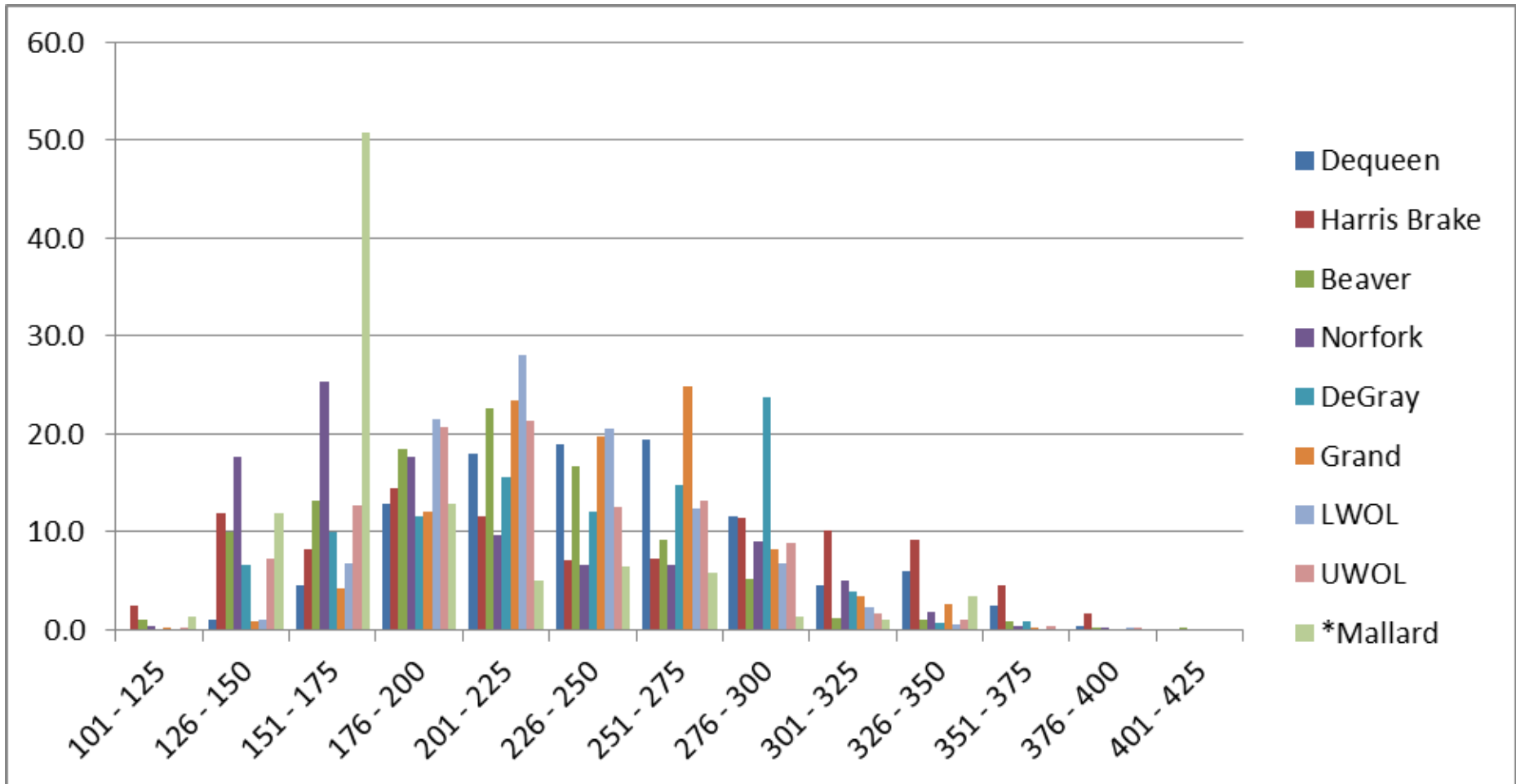


White Crappie CPUE

	Sept	Oct	Nov	Dec	Jan	Overall
Harris Brake	0.7	1.4	16.4	32.4	16.2	13.4
Beaver	5.3	5.8	3.2	8.6	11.1	6.8
DeGray*	0.0	0.3	0.3	0.0	0.0	0.1
Grand	0.9	1.1	2.1	62.6	1.3	13.4
Mallard*		3.0	1.3	0.8		1.0
Upper White Oak*	1.4	0.5	0.4	1.3	2.7	1.3
Lower White Oak*	2.6	2.1	1.3	3.7	3.0	2.5
Norfolk*	1.3	1.9	0.8	2.5	0.7	1.5
DeQueen*	0.0	0.0	0.1	0.0	0.2	0.1



Overall Length Frequency



Possible Issues

- Inexperience with net sets
- Undersampling Age-1?
- Current Crappie Management Plan
- Initial Cost
- Re-evaluation of current regulations
- Bycatch
- Thermocline
- Barotrauma



Future Research

- Escapement
 - Possible throat restriction
- Sampling efficiency
- Size selectivity
- Effects of turbidity
- Species effects
- Use in riverine systems



Conclusion

- Less time/effort/manpower
- Ability to sample waterbodies where trap nets don't effectively sample crappie populations
- October appears to produce highest CPUE for crappie in general
 - Higher Black Crappie CPUE recorded in October, while higher White Crappie CPUE recorded in December/January
 - Most lakes in the study were Black Crappie dominant
- Potential for future research
- Lead netting proves to be an effective sampling method across Arkansas





QUESTIONS?

